ADOBE® COLDFUSION™ 8

INSTALLING AND USING COLDFUSION

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Adobe® ColdFusion™ Installing and Using ColdFusion for AIX®, Linux®, Mac OS, Solaris™, UNIX®, and Windows®.

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Chapter 1: Introduction

Installing and Using ColdFusion is intended for anyone who installs and configures Adobe ColdFusion.

About ColdFusion documentation

The ColdFusion documentation is designed to provide support for the complete spectrum of participants.

Documentation set

Book	Description
Installing and Using ColdFusion	Describes system installation and basic configuration for Windows, Macintoch, Solaris, Linux, and AIX.
Configuring and Administering ColdFusion	Part 1 describes how to manage the ColdFusion environment, including connecting to your data sources, configuring security for your applications, and monitoring server activity. Part 2 describes Verity search tools and utilities that you can use for configuring the Verity Search Server engine, as well as creating, managing, and troubleshooting Verity collections.
ColdFusion Developer's Guide	Describes how to develop your dynamic web applications, including retrieving and updating your data, using structures, and forms.
CFML Reference	Provides descriptions, syntax, usage, and code examples for all ColdFusion tags, functions, and variables.

Viewing online documentation

All ColdFusion documentation is available online in HTML and Adobe Acrobat Portable Document Format (PDF) files. Go to the documentation home page for ColdFusion on the Adobe website: www.adobe.com/support/documentation/en/coldfusion/. Also, you can view the documentation in LiveDocs, which lets you add comments to pages and view the latest comments added by Adobe, by going to www.adobe.com/go/livedocs_cf8docs.

Chapter 2: Preparing to Install ColdFusion

Before installing Adobe ColdFusion 8, you should review ColdFusion product editions, system requirements, and other high-level considerations.

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About the ColdFusion installation

ColdFusion provides a powerful and flexible installation and upgrade process. The ColdFusion installation process includes the following phases:

1 Plan the installation by determining your installation, configuration, and upgrade options.

2 Run the ColdFusion installer.

3 (J2EE configuration only) Deploy and configure ColdFusion on your J2EE application server.

The ColdFusion installation process supports the following scenarios:

New installation Install ColdFusion on a computer with no earlier ColdFusion installation.

Upgrade installation You can upgrade from ColdFusion MX, ColdFusion MX 6.1, and ColdFusion MX 7. When upgrading from ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7, the installer preserves the existing settings and installs in a new directory, automatically assigning ports that do not conflict with the existing installation.

You can install ColdFusion 8 in any of the following configurations:

Server configuration Lets you install one instance of ColdFusion 8 with an embedded J2EE server. This configuration most closely resembles the ColdFusion MX base release and other releases prior to ColdFusion MX, such as ColdFusion 5 and ColdFusion 4.5. This was formerly known as the stand-alone configuration. For information on installing the server configuration, see "Installing the Server Configuration" on page 7.

Multiserver configuration (Enterprise Edition only) Installs Macromedia® JRun™ from Adobe and automatically deploys ColdFusion 8 in a separate JRun server instance. This configuration supports server instance creation and ColdFusion deployment in the ColdFusion Administrator and lets you manage ColdFusion 8 deployments on multiple JRun servers. For information on installing the multiserver configuration, see "Installing the Multiserver Configuration" on page 17.

J2EE configuration (Enterprise Edition only) Lets you deploy ColdFusion 8 as a Java application running on a Java 2 Enterprise Edition (J2EE) application server, using the bundled license of JRun or a third-party J2EE server, such as IBM WebSphere or BEA WebLogic. When you use the J2EE configuration, you can deploy ColdFusion 8 multiple times on a single computer. For information on installing the J2EE configuration, see "Installing the J2EE Configuration" on page 25.

ColdFusion 8 product editions

The ColdFusion 8 product editions are available on the Adobe website. To view the product editions, go to www.adobe.com/go/cf8_editions/.

System requirements

The ColdFusion 8 system requirements are available on the Adobe website. To view the system requirements, including a list of supported J2EE application servers, go to www.adobe.com/

Installation considerations

Before installing ColdFusion 8, review the considerations for installing or upgrading on your platforms.

Note: *To use VisiBroker for CORBA connections in ColdFusion, see "Enabling CORBA support" on page 88.*

Installation considerations for all platforms

The following are installation considerations for all platforms:

- Adobe supports installing ColdFusion 8 side-by-side with ColdFusion MX 7, ColdFusion MX 6.1 and ColdFusion MX.
- If you installed a Beta version of ColdFusion 8, you must uninstall it before you install the release version.
- Adobe recommends using the built-in (internal port-based) web server for development, but not in a production environment.
- Earlier versions of ColdFusion, including ColdFusion MX 6.1, can coexist with ColdFusion 8; however, you cannot install ColdFusion 8 in the directory where the earlier version resides.

  You can switch to use a different web server for ColdFusion 8 after the installation, by following the instructions for your platform and the web server in "Configuring web servers" on page 79.
- During installation of the server configuration, if you select the built-in web server, your web root directory is C:/ColdFusion8/wwwroot by default. This web server runs on the 8500 port. To display a page, append 8500 to the end of the host name or IP address; for example, http://localhost:8500/MyApp.cfm. If the page still does not appear, ensure that the document is located in the ColdFusion 8 web root directory; for example, C:/ColdFusion8/wwwroot\MyApp.cfm. For more information, see "Using the built-in web server" on page 13.
- ColdFusion 8 is built in Java. By default, ColdFusion installs and runs on JDK 1.6. If you install ColdFusion 8 on any J2EE server that is not running on JRE 1.6, you must replace the tools.jar file in the lib directory with the tools.jar file from the appropriate JRE.
- In an optimal production environment, each ColdFusion application is hosted on a dedicated server; database, mail, and other servers are not on the same computer.
- Before you install ColdFusion 8, you should shut down ColdFusion MX 7 Verity to ensure proper migration of Verity collections.

Installation considerations for Windows

The following installation considerations are for Windows systems only:

- Do not configure the server running ColdFusion as a Primary Domain Controller (PDC) or Backup Domain Controller (BDC). Adobe follows the Microsoft network model, in which the first level is the PDC or BDC. These systems only manage the network or domain and are not designed to run application servers. ColdFusion should reside on the second level of Microsoft Windows 2000 or Microsoft Windows 2003 stand-alone systems. Stand-alone servers can participate in a network or domain.

- Windows 2000 Professional or Microsoft Windows 2003 handles only ten TCP/IP connections concurrently. Therefore, Adobe does not recommend using this operating system in a production environment; use Windows 2000 Server or Microsoft Windows 2003 Server instead.

Installation considerations for UNIX

The following are installation considerations for UNIX systems only:

- For troubleshooting purposes, the installer creates the following log file during an installation or upgrade in UNIX: *cf_root*/Adobe_ColdFusion_8_InstallLog.log. If you contact AdobeTechnical Support for installation support, you must send them this file.
- If you are deploying the J2EE configuration on a platform other than Linux or Solaris, use the coldfusion-80-other.jar installer. This Java-only installer does not include features that require platform-specific binary files, such as Verity and C++ CFX support.

Chapter 3: Installing the Server Configuration

The ColdFusion server configuration contains an embedded copy of Macromedia JRun from Adobe and is most similar to earlier versions of ColdFusion.

Note: *The* cf_root *directory refers to your installation directory. By default, this directory is C:\ColdFusion8 in Windows, and /opt/coldfusion8 in UNIX.*

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Gathering information necessary to install the server configuration

Although the ColdFusion 8 installer provides an intuitive interface, it helps to plan your answers to the questions asked by the installer. Use the following tables to help plan for installing the server configuration of ColdFusion 8.

Question	Answer
Platform-specific installer name?	_____
Serial number for ColdFusion?	_____
Type of installation?	_X_ Server configuration ___ Multiserver configuration ___ J2EE configuration

Question	**Answer**
Subcomponents to install?	___ ColdFusion 8 ODBC Services ___ ColdFusion 8 Search Services ___ .NET Integration Services ___ ColdFusion 8 Documentation ___ LiveCycle Data Services ES
ColdFusion installation directory?	_____
Serial number for Adobe LiveCycle Data Services Enterprise Suite (ES)? (Only if you selected to install the Enterprise Edition of LiveCycle Data Services ES) If you leave this blank, the installer installs the Express Edition. For information on upgrading to the Enterprise Edition after completing the ColdFusion installation, see the LiveCycle Data Services ES documentation.	_____
Configure web server or use built-in web server?	___ Configure web server for ColdFusion ___ Enable ColdFusion built-in web server
Web server to configure? (Only if you do not use the built-in web server.)	___ IIS ___ Apache ___ SunONE ___ Other
Configuration directory? (Apache and SunONE)	_____
Path to server binary? (Apache)	_____

Question	Answer
ColdFusion Administrator password?	_____
Whether to enable RDS?	___ Yes ___ No **Note:** RDS allows the server to interact with remotely connected developers. Adobe recommends that you disable RDS for production servers. Disabling RDS also disables the directory browsing applets in the ColdFusion Administrator.
RDS password?	_____

Installing ColdFusion using the server configuration

Once you have determined the answers to the questions in the section "Gathering information necessary to install the server configuration" on page 7, you can then do the following, as applicable:

- Installing ColdFusion server configuration in Windows
- Installing the ColdFusion server configuration in UNIX

Installing ColdFusion server configuration in Windows

Note: *The Windows installer requires a computer that supports at least 256 colors.*

Install ColdFusion in Windows

1 Read the online version of the Release Notes for any late-breaking information or updates. For more information, see www.adobe.com/go/cf8_releasenotes.

2 Ensure that your operating system meets the system requirements described on the Adobe website at www.adobe.com/go/cf8_sysreqs.

3 Review "Installation considerations for Windows" on page 5 and "Installation considerations for all platforms" on page 5.

4 Determine the answers to the questions in the table in "Gathering information necessary to install the server configuration" on page 7.

5 Close any applications that are currently running on your computer.

6 If you plan to configure an external web server, ensure that the web server is running.

7 Insert the DVD or download the setup file from the Adobe website.

8 If the installation wizard does not start automatically when you insert the DVD, locate the setup.exe file on the DVD and double-click it. If you are installing from a network or a downloaded file, locate the ColdFusion installation executable file (coldfusion-80-win.exe) and double-click it.

9 Follow the instructions in the installation wizard, and let it run to completion.

10 Click OK to open the ColdFusion Administrator and configure the server.

11 To install any other integrated Adobe or third-party technologies, see "Installing Integrated Technologies" on page 67.

12 Configure and manage your system, as described in "Configuring Your System" on page 75.

13 To learn about ColdFusion, read the documentation, which is accessible through the Documentation link on the Resources page of the ColdFusion Administrator.

Installing the ColdFusion server configuration in UNIX

By default, ColdFusion installs into the /opt/coldfusion8 directory. To install it into a different directory, you must create that directory before you run the installation.

Note: *The default user is* nobody *for the UNIX installer running ColdFusion.*

Install the ColdFusion server configuration in UNIX

1 Read the online version of the Release Notes for any late-breaking information or updates. For more information, see www.adobe.com/go/cf8_releasenotes.

2 Ensure that your operating system meets the system requirements described on the Adobe website at www.adobe.com/go/cf8_sysreqs.

3 Review "Installation considerations for UNIX" on page 6 and "Installation considerations for all platforms" on page 5.

4 Determine the answers to the questions in the section "Gathering information necessary to install the server configuration" on page 7.

5 If you plan to configure an external web server, ensure that the web server is running.

6 Log in as root.

7 Copy the installation file that is appropriate for your platform and locale from the DVD or Adobe website, and save it to a directory on your local disk.

The following installation files are those for the supported server configuration platforms:

- coldfusion-80-lin.bin
- coldfusion-80-sol64.bin

8 Using the `cd` command, go to the directory that contains the installation file.

9 Ensure that you have executable permission for the installation file. You can change permissions on the file by using the following command:

```
chmod 777 coldfusion-80-sol64.bin
```

10 Start the installation with the following command:

```
./<filename>
```

Note: *To run the UNIX installer in GUI mode, type* ***./<filename> -i gui****.*

11 Follow the prompts in the installation program, and let it run to completion.

Note: *For security reasons, it is crucial that you do not use* root *for the run-time user.*

12 Start ColdFusion with the following command:

```
/cf_root/bin/coldfusion start
```

If you specified the use of an external web server when you ran the installer, ColdFusion automatically runs the *cf_root*/bin/cfmx-connectors.sh script when it starts the first time. This shell script runs the Web Server Configuration Tool by using the settings that you specified during the installation. If there are problems running this script, review the configuration and bin directory specifications, modify as necessary, and rerun the script. You can also configure your web server by using the scripts in *cf_root*/bin/connectors, as appropriate.

To stop ColdFusion, use the following command:

```
/cf_root/bin/coldfusion stop
```

For more information on managing processes, see “Managing the ColdFusion process in UNIX” on page 77.

13 Open ColdFusion Administrator to run the Configuration Wizard.

14 Configure and manage your system, as described in “Configuring Your System” on page 75.

15 To install any other integrated Adobe or third-party technologies, see “Installing Integrated Technologies” on page 67.

16 To learn about ColdFusion, read the documentation, which is accessible through the Documentation link on the Resources page of the ColdFusion Administrator.

ColdFusion server configuration directory structure

The following table describes the directories under the *cf_root* directory when you install the server configuration of ColdFusion:

Directory	Description
bin	Programs for starting, stopping, and viewing information for ColdFusion, and to run Crystal Reports (Windows only).
cache	Repository for temporary files from ColdFusion.
cfx	Sample C++ and Java CFX files with their supporting files. You can also store your CFX files in this directory (although you can put them in any location that is defined in your classpath).
charting	Files for the ColdFusion graphing and charting engine.
CustomTags	Repository for your custom tags.
db	The sample Apache Derby databases for all platforms.
gateway	Files for ColdFusion event gateways.
jintegra	JIntegra programs, libraries, and other supporting files (for example, to integrate Java and COM code; manage access to ActiveX controls (OCXs) that are hosted in a graphical user interface (GUI) container; and register the JVM and type libraries).
jnbridge	Files for .NET Integration Services.
lib	JAR, XML, property, and other files that are the foundation of ColdFusion, for functionality such as queries, charting, mail, security, Verity searches, and system probes.
logs	Repository for ColdFusion log files. JRE-specific log files are in the runtime/logs directory.
Mail	Repository for spooled mail and mail that cannot be delivered.
META-INF	XML metadata for the ColdFusion Administrator.
registry	(UNIX only) Flat file to store registry settings
runtime	Programs and supporting files for the ColdFusion run time. In Windows, the files for the bundled JRE are in runtime\jre.
runtime/jre	Files for the Java Runtime Environment (JRE) that is bundled with ColdFusion.

Directory	Description
uninstall	Files to uninstall ColdFusion.
verity	Verity collections, configurations, and services directories.
wwwroot	Default web root directory for the built-in web server. When running on other web servers, this directory contains only the WEB-INF directory; do not remove this directory.

Using the built-in web server

ColdFusion has its own web server that you can use to develop ColdFusion applications, without depending on an external web server, such as Internet Information Server (IIS), Apache, or SunONE. Adobe does not recommend using the built-in web server in a production environment. However, it is more than suitable for development, allowing you to create virtual directories and set the default document (for example, default.cfm or index.cfm).

During the ColdFusion installation, you must choose a web server. If you select the built-in web server, your web root directory is located in the *cf_root*/wwwroot directory. By default, the web server runs on port 8500. This means that to display a page in your application, you must append :8500 to the host name or IP address in the URL; for example,
http://localhost:8500/YourApp1/index.cfm. (If the page still does not appear, ensure that the document is located in the built-in web server's web root directory; for example, C:\ColdFusion8\wwwroot\YourApp1\index.cfm.)

Note: *If you install the server configuration of ColdFusion with the built-in server and port 8500 is in use, for example by ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7, the installer starts with port 8501 and looks at up to 100 ports to find one that is not being used by an application that is running. ColdFusion uses that port and displays a message to indicate which port it selected.*

If you select an external web server, the built-in web server is deactivated.

Switching the port for the built-in web server

You can change the port on which the built-in web server runs.

Change the port for the built-in web server

1 Back up the jrun.xml file.

This file is in the *cf_root*\runtime\servers\coldfusion\SERVER-INF directory in Windows, and in the *cf_root*/runtime/servers/coldfusion/SERVER-INF directory in UNIX.

2 Open the original jrun.xml file for editing.

3 Change the port number specified in the WebService port attribute (near the bottom of the file):

```
<service class="jrun.servlet.http.WebService" name="WebService">
    <attribute name="port">8500</attribute>
    <attribute name="interface">*</attribute>
    <attribute name="deactivated">false</attribute>
    ...
</service>
```

Note: *Ensure that the* `deactivated` *attribute is set to* `false`.

4 Save the file, and restart ColdFusion.

Switching from another web server

You can switch from an external web server to the built-in ColdFusion web server without reinstalling, even if you did not select it during installation.

Switch from an external web server to the built-in web server

1 Back up the jrun.xml file.

This file is in the *cf_root*\runtime\servers\default\SERVER-INF directory in Windows, and in the *cf_root*/runtime/servers/default/SERVER-INF directory in UNIX.

2 Open the original jrun.xml file for editing.

3 Locate the WebService service and set the `deactivated` attribute to `false`:

```
<service class="jrun.servlet.http.WebService" name="WebService">
    <attribute name="port">8500</attribute>
    <attribute name="interface">*</attribute>
    <attribute name="deactivated">false</attribute>
    ...
</service>
```

4 Locate the ProxyService service and set the `deactivated` attribute to `true`:

```
<service class="jrun.servlet.jrpp.JRunProxyService" name="ProxyService">
  <attribute name="activeHandlerThreads">8</attribute>
```

```
    <attribute name="minHandlerThreads">1</attribute>
    <attribute name="maxHandlerThreads">1000</attribute>
    <attribute name="mapCheck">0</attribute>
    <attribute name="threadWaitTimeout">20</attribute>
    <attribute name="backlog">500</attribute>
    <attribute name="deactivated">true</attribute>
  ...
```

5 Save the file.

6 Copy the CFM pages in your web root directory (including the CFIDE and cfdocs directories) to the ColdFusion *cf_root*/wwwroot directory, and use appropriate URL references (for example, http://localhost:8500/YourApp1/index.cfm). If you switch from the built-in web server to an external web server, you must copy the contents of the *cf_root*/wwwroot directory to your web server root. If you are using Adobe Dreamweaver, ensure that you reconfigure any sites that you move from one server to another.

7 Restart ColdFusion.

To switch to another web server, follow the instructions for the appropriate web server on your platform in "Configuring web servers" on page 79.

Uninstalling ColdFusion

Uninstalling ColdFusion deletes all program files and related components from your computer.

Uninstall ColdFusion from Windows

1 Select Start > Settings > Control Panel > Add/Remove Programs > Adobe ColdFusion 8.

2 Click Change/Remove.

3 When the program completes, remove any remaining files and directories in the *cf_root* directory.

4 In some cases, the uninstall program may require you to restart the computer.

ColdFusion is deleted from your server.

Uninstall ColdFusion from UNIX

1 Log in as root.

2 Enter the following command to go to the *cf_root*/uninstall directory:

```
cd cf_root/uninstall
```

3 Enter the following command:

```
./uninstall.sh
```

4 When the program completes, remove any remaining files and directories in the *cf_root* directory.

ColdFusion is deleted from your server.

Chapter 4: Installing the Multiserver Configuration

The multiserver configuration deploys and configures ColdFusion on its own JRun server.

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Gathering information necessary to install the multiserver configuration

Although the ColdFusion 8 installer provides an intuitive interface, it helps to plan your answers to the questions asked by the installer. Use the following tables to help plan for installing the multiserver configuration of ColdFusion 8.

Question	Answer
Platform-specific installer name?	_____
Serial number for ColdFusion?	_____
Type of installation?	___ Server configuration _X_ Multiserver configuration ___ J2EE configuration

Question	**Answer**
Subcomponents to install?	___ ColdFusion 8 ODBC Services ___ ColdFusion 8 Search Services ___ .NET Integration Services ___ ColdFusion 8 Documentation ___ LiveCycle Data Services ES
JRun installation directory?	_____
Serial number for Adobe LiveCycle Data Services ES? (Only if you selected to install the Enterprise Edition of LiveCycle Data Services ES) If you leave this blank, the installer installs the Express Edition. For information on upgrading to the Enterprise Edition after completing the ColdFusion installation, see the LiveCycle Data Services ES documentation.	_____
Configure web server or use built-in web server?	___ Configure web server for ColdFusion ___ Enable ColdFusion built-in web server
Web server to configure? (Only if you do not use the built-in web server.)	___ IIS ___ Apache ___ SunONE ___ Other
Configuration directory? (Apache and SunONE)	_____
Path to server binary? (Apache)	_____

Question	Answer
ColdFusion Administrator password?	_____
Whether to enable RDS?	___ Yes ___ No **Note:** RDS allows the server to interact with remotely connected developers. Adobe recommends that you disable RDS for production servers. Disabling RDS also disables the directory browsing applets in the ColdFusion Administrator.
RDS password?	_____

About multiserver configuration

When you install ColdFusion using the multiserver configuration, the installation wizard automatically deploys and configures ColdFusion on its own JRun server. This configuration supports server instance creation in the ColdFusion Administrator and lets you manage ColdFusion deployments on multiple JRun servers.

If you already have JRun 4 installed and you want to use the server instance creation feature of ColdFusion, you must uninstall it *before* you install the multiserver configuration of ColdFusion.

When you use the multiserver configuration, you can use the ColdFusion Administrator to define multiple server instances on a single computer, each running ColdFusion. Running multiple instances of ColdFusion has the following advantages:

Application isolation You deploy an independent application to each server instance. Each server instance has separate settings, and because each server instance runs in its own instance of the JVM, problems encountered by one application have no effect on other applications.

Load balancing and failover You deploy the same application to each server instance and add the instances to a cluster. The web server connector optimizes performance and stability by automatically balancing load and by switching requests to another server instance when a server instance stops running.

For more information on configuring ColdFusion on multiple server instances, including detailed information for configuring multiple server instances when running on JRun 4, see *Configuring and Administering ColdFusion*.

For more information about J2EE servers, see “ColdFusion and J2EE application servers” on page 27.

Installing ColdFusion using the multiserver configuration

You must install ColdFusion using the multiserver configuration on a computer that has no earlier versions of JRun.

During the multiserver installation procedure, the installation wizard performs the following actions:

- Installs JRun 4.
- Creates a JRun server named cfusion (in addition to the admin and samples JRun servers).
- (Windows) Creates and starts Windows services for the admin and cfusion JRun servers.
- Configures the *jrun_root*/bin/jvm.config file, as appropriate for the platform.
- (Optional) Configures the JRun cfusion server for use with an external web server. In Windows, the installation wizard runs the Web Server Configuration Tool. In UNIX, the installation wizard creates a shell script that you can run to execute the Web Server Configuration Tool with the settings specified in the installation wizard.

Note: *The default JRun web server port for the cfusion server is 8300. However, if you install the multiserver configuration of ColdFusion with the built-in server and port 8300 is in use, the installer starts with port 8301 and looks at up to 100 ports to find one that is not being used by an application that is running. ColdFusion uses that port and displays a message to indicate which port it selected.*

Installing the multiserver configuration in Windows

Note: *The Windows installer requires a computer that supports at least 256 colors.*

Install the multiserver configuration in Windows

1 Read the online version of the Release Notes for any late-breaking information or updates. For more information, see www.adobe.com/go/cf8_releasenotes.

2 Ensure that your operating system meets the system requirements described on the Adobe website at www.adobe.com/go/cf8_sysreqs.

3 Review the “Installation considerations for Windows” on page 5 and “Installation considerations for all platforms” on page 5.

4 Determine the answers to the questions in the section “Gathering information necessary to install the multiserver configuration” on page 17.

5 Close any applications that are currently running on your computer.

6 If you plan to configure an external web server, ensure that the web server is running.

7 Insert the DVD or download the setup file from the Adobe website.

8 If the installation wizard does not start automatically when you insert the DVD, locate the setup.exe file on the DVD and double-click it. If you are installing from a network or a downloaded file, locate the ColdFusion installation executable file (coldfusion-80-win.exe) and double-click it.

9 Follow the instructions in the installation wizard and let it run to completion. Ensure that you select Multiserver configuration.

> ***Note:*** *The installation wizard disables the multiserver configuration option if JRun 4 is already installed on the computer.*

10 Open the ColdFusion Administrator to configure the server.

11 Configure and manage your system, as described in "Configuring Your System" on page 75.

12 To install any other integrated Adobe or third-party technologies, see "Installing Integrated Technologies" on page 67.

13 To learn about ColdFusion, read the documentation, which is accessible through the Documentation link on the Resources page of the ColdFusion Administrator.

14 Code CFM pages.

If you configured an external web server, store CFM pages under your web root directory. If you are using the built-in web server, store CFM pages under the web application root (*jrun_root*/servers/cfusion/cfusion-ear/cfusion-war) and access these pages using a URL of the form http://*hostname*:8300/*context-root*/*filename*.cfm, as follows:

- *hostname* The machine name, IP address, or localhost.
- *contextroot* The context root for the ColdFusion web application. For more information, see "Context root" on page 28.
- *filename* The directory path and file to display. The path is relative to the cfusion-war directory.

For example, to display a CFM file located at C:/JRun4/servers/cfusion/cfusion-ear/cfusion-war/eisapp/index.cfm using the built-in JRun web server and a context root of cfmx, you specify the URL as http://localhost:8300/cfusion/eisapp/index.cfm.

Installing the multiserver configuration in UNIX

Install the multiserver configuration in UNIX

1 Read the online version of the Release Notes for any late-breaking information or updates. For more information, see www.adobe.com/go/cf8_releasenotes.

2 Ensure that your operating system meets the system requirements described on the Adobe website at www.adobe.com/go/cf8_sysreqs.

3 Review the "Installation considerations for UNIX" on page 6 and "Installation considerations for all platforms" on page 5.

4 Determine the answers to the questions in the section "Gathering information necessary to install the multiserver configuration" on page 17.

5 Log in as root.

6 Copy the installation file that is appropriate for your platform and locale from the DVD or Adobe website, and save it to a directory on your local disk.

The following installation files are those for the supported server configuration platforms:

- coldfusion-80-lin.bin
- coldfusion-80-sol.bin

7 Using the `cd` command, go to the directory that contains the installation file.

8 Start the installation with the following command:

```
./<filename> -i console
```

The installation program starts.

Note: *To run the UNIX installer in GUI mode, type* `./<`filename`> -i gui`.

9 Follow the instructions in the installation wizard. Ensure that you select Multiserver configuration.

Note: *For security reasons, it is crucial that you do not use* root *for the run-time user.*

10 When the installation completes successfully, start the JRun cfusion server:

```
jrun_root/bin/jrun -start cfusion
```

11 If you specified external web server settings when you ran the installation wizard, run the *jrun_root*/bin/cfmx-connectors.sh shell script. The script runs the Web Server Configuration Tool, which configures the web server for use with ColdFusion. The web server should also be running.

If there are problems running this script, review the configuration and bin directory specifications, modify as necessary, and rerun the script. You can also configure your web server using the scripts in *jrun_root*/bin/connectors, or through java -jar *jrun_root*/lib/wsconfig.jar, as appropriate.

Note: *This step is important, because if you specified the use of an external web server when you ran the installation wizard, the CFIDE and cfdocs directories are placed under that web server's root directory, and you must successfully configure the web server before you open the ColdFusion Administrator.*

12 Open ColdFusion Administrator to run the configuration wizard.

13 Configure and manage your system, as described in "Configuring Your System" on page 75.

14 To learn about ColdFusion, read the documentation, which is accessible through the Documentation link on the Resources page of the ColdFusion Administrator.

15 Code ColdFusion CFM pages.

If you configured an external web server, store CFM pages under your web root directory. If you are using the built-in web server, store CFM pages under the web application root (*jrun_root*/servers/cfusion/cfusion-ear/cfusion-war) and access these pages using a URL of the form http://*hostname*:8300/*context-root*/*filename*.cfm, as follows:

- *hostname* The machine name, IP address, or localhost.
- *contextroot* The context root for the ColdFusion web application. For more information, see "Context root" on page 28.
- *filename* The directory path and file to display. The path is relative to the cfusion-war directory.

For example, to display a CFM file located at /opt/jrun4/servers/cfusion/cfusion-ear/cfusion-war/eisapp/index.cfm using the built-in JRun web server and a context root of cfmx, you specify the URL as http://localhost:8300/cfmx/eisapp/index.cfm.

Configuration

In addition to enabling sandbox security in the ColdFusion Administrator, the application server must be running a security manager (`java.lang.SecurityManager`) and you must define the following JVM arguments:

```
-Djava.security.manager
-Djava.security.policy="cf_webapp_root/WEB-INF/cfusion/lib/coldfusion.policy"
-Djava.security.auth.policy="cf_webapp_root/WEB-INF/cfusion/lib/neo_jaas.policy"
```

You configure these settings by using a text editor to modify the *jrun_root*/bin/jvm.config file. or through the Settings panel of the JRun Management Console (JMC).

Uninstalling ColdFusion

The steps for uninstalling ColdFusion depend on your operating system.

Uninstall ColdFusion from Windows

1. Select Start > Settings > Control Panel > Add/Remove Programs > Adobe ColdFusion 8 with JRun 4.
2. Click Change/Remove.
3. When the program completes, remove any remaining files and directories in the *cf_webapp_root* directory.
4. In some cases, the uninstall program may require you to restart the computer.

ColdFusion is deleted from your server.

Uninstall ColdFusion from UNIX

1. Log in as root.
2. Enter the following command to go to the *cf_webapp_root*/uninstall directory:

```
cd cf_webapp_root/uninstall
```

3. Enter the following command:

```
./uninstall.sh
```

4. When the program completes, remove any remaining files and directories in the *cf_webapp_root* directory.

ColdFusion is deleted from your server.

Chapter 5: Installing the J2EE Configuration

Follow the instructions in this topic to install, deploy, and undeploy Adobe ColdFusion Enterprise Edition in the J2EE configuration. Also follow the specific instructions for installing Macromedia JRun 4 from Adobe (which automatically deploys and configures ColdFusion), and general instructions for installing all J2EE application servers.

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Gathering information necessary to install the J2EE configuration

Although the ColdFusion 8 installer provides an intuitive interface, it helps to plan your answers to the questions asked by the installer. Use the following tables to help plan for installing the J2EE configuration of ColdFusion 8.

Question	Answer
Platform-specific installer name?	_____
Serial number for ColdFusion?	_____
Type of installation?	___ Server configuration ___ Multiserver configuration _X_ J2EE configuration

Question	Answer
EAR or WAR file?	___ EAR ___ WAR
Subcomponents to install?	___ ColdFusion 8 ODBC Services ___ ColdFusion 8 Search Services ___ .NET Integration Services ___ ColdFusion 8 Documentation ___ LiveCycle Data Services ES
Installation directory for EAR or WAR file?	_____
Serial number for Adobe LiveCycle Data Services ES? (Only if you selected to install the Enterprise Edition of LiveCycle Data Services ES) If you leave this blank, the installer installs the Express Edition. See the LiveCycle Data Services ES documentation for information on upgrading to the Enterprise Edition after completing the ColdFusion installation.	_____
Whether the EAR/WAR is to be used with WebSphere (Only if you selected to install LiveCycle Data Services ES.)	_____
Context root for ColdFusion (EAR file only, default=cfusion)?	_____
ColdFusion Administrator password?	_____
Whether to enable RDS?	___ Yes ___ No **Note:** RDS allows the server to interact with remotely connected developers. Adobe recommends that you disable RDS for production servers. Disabling RDS also disables the directory browsing applets in the ColdFusion Administrator.
RDS password?	_____

ColdFusion and J2EE application servers

One of the main advantages of ColdFusion is that you can install it as an integrated server (the server configuration) or deploy it as a Java application on a standards-based J2EE application server (multiserver configuration and J2EE configuration). In addition to greater flexibility, this allows your ColdFusion applications to leverage features of the J2EE architecture, such as support for multiple application instances and multiple-instance clustering.

You can deploy ColdFusion in the J2EE configuration by using a J2EE application server, such as JRun 4 or IBM WebSphere. When you use the J2EE configuration, you can use an existing J2EE application server; the installation wizard creates a web application archive (WAR) or enterprise application archive (EAR) file, which you then deploy by using the tools provided by your application server.

Choosing EAR or WAR deployment

In the J2EE environment, you deploy applications in one of the following formats:

Web application archive file Contains the ColdFusion application. A web application archive (also called a WAR) uses a directory structure that contains a WEB-INF/web.xml deployment descriptor, which defines the servlets and context parameters it uses. J2EE application servers can deploy web applications in this directory structures as-is or in compressed WAR files that contain these directory structures. However, ColdFusion must run from an expanded directory structure:

```
cfusion (cfusion.war)
  WEB-INF
    web.xml
  CFIDE
  cfdocs
CFIDE (rds.war)
  WEB-INF
    web.xml
```

The cfusion.war file contains the ColdFusion web application. The rds.war file is a web application that redirects RDS requests from /CFIDE to /*context-root*/CFIDE. It forwards requests to the ColdFusion Administrator when ColdFusion uses a context root other than a forward slash (/).

Enterprise application archive file Contains the ColdFusion and RDS redirector web applications. An enterprise application archive (also called an EAR) uses a directory structure that contains a META-INF/application.xml deployment descriptor, which defines the web applications that it contains. J2EE application servers can deploy enterprise applications in these directory structures as-is or in compressed EAR files that contain these directory structures. However, ColdFusion must run from an expanded directory structure:

```
cfusion-ear
  META-INF
    application.xml
  cfusion-war
    WEB-INF
      web.xml
    CFIDE
    cfdocs
  rds.war
    WEB-INF
      web.xml
```

If your J2EE application server supports enterprise applications, you should install and deploy the EAR file. For more information, see "Installing an EAR file or WAR files" on page 30.

Context root

Because the J2EE environment supports multiple, isolated web applications running in a server instance, J2EE web applications running in a server are each rooted at a unique base URL, called a *context root* (or context path). The J2EE application server uses this initial portion of the URL (that is, the portion immediately following http://*hostname*) to determine which web application services an incoming request.

For example, if you are running ColdFusion with a context root of */cf8*, you display the ColdFusion Administrator using the URL http://localhost/*cf8*/CFIDE/administrator/index.cfm.

Most J2EE application servers allow one application in each server instance to use a forward slash (/) for the context root. Setting the context root to / for the ColdFusion application is especially useful when serving CFM pages from the web server, because it supports the functionality most similar to earlier ColdFusion versions. In addition, the RDS web application is not required if you use a context root of /.

When you deploy the ColdFusion EAR file, it uses the context root that you specified when you ran the installation wizard, which copied your specification to the `context-root` element of the META-INF/application.xml file. When you deploy ColdFusion as a WAR file, you use application-server-specific functionality to define the context root.

Note: *Each web application running in a server instance must have a unique context root. The JRun default web application uses / for a context root, so if you want to use / for the ColdFusion context root when you deploy on JRun, you must either delete the default-war application or change the default-war context root by editing the default-ear/META-INF/application.xml file.*

Multiple instances

When you use the J2EE configuration, you can define multiple server instances on a single computer, each running ColdFusion. Running multiple instances of ColdFusion has the following advantages:

Application isolation You deploy an independent application to each server instance. Each server instance has separate settings, and because each server instance runs in its own instance of the JVM, problems encountered by one application have no effect on other applications.

Load balancing and failover You deploy the same application to each server instance and add the instances to a cluster. The web server connector optimizes performance and stability by automatically balancing load and by switching requests to another server instance when a server instance stops running.

For more information on configuring ColdFusion on multiple server instances, including detailed information for configuring multiple server instances when running on JRun 4, see *Configuring and Administering ColdFusion*. The multiserver configuration provides the instance manager to make configuring ColdFusion on multiple servers easier; however, you can also configure ColdFusion on multiple servers manually by deploying EAR files and WAR files on multiple server instances.

Platforms

Full ColdFusion functionality is available for Windows, Macintosh, Linux, and Solaris, except that the following are Windows-specific: COM, .NET, and ODBC Services. If you install ColdFusion 8 in Mac OS® X, to use Verity you must install the stand-alone version of Verity on a computer running a supported operating system, and then configure the K2 Server page in the ColdFusion Administrator. AIX support is provided for WebSphere application server only. Functionality provided by platform-specific binary files. is not available on AIX. Additionally, you can install and deploy the all-Java ColdFusion J2EE configuration on other platforms, although without the functionality provided by platform-specific binary files (C++ CFXs).

Preparing to install using the J2EE configuration

When you install the J2EE configuration, you have the following options:

New installation—multiserver configuration Use this option to install a copy of JRun 4 with ColdFusion deployed and configured as an enterprise application in a JRun server. For installation details, see "Installing ColdFusion using the multiserver configuration" on page 20. Adobe recommends this configuration option if JRun or another J2EE application server is not already installed on the computer and you plan to use JRun 4 instead of another J2EE application server.

New installation—create an EAR or WAR file Use this option if you already have a J2EE application server running on the computer. The installation wizard creates an EAR file or two WAR files, which you deploy using J2EE application-server-specific tools or utilities. For installation details, see "Installing an EAR file or WAR files" on page 30.

Installing an EAR file or WAR files

If your computer is already running a J2EE application server, the installation wizard creates an EAR file or WAR files, which you deploy using application-server-specific tools.

The ColdFusion J2EE configuration must run from an expanded directory structure. Different J2EE application servers have different functionality with regard to deployment and an expanded directory structure, as follows:

Deploy compressed archive to working directory On some J2EE application servers (such as IBM WebSphere), the deployment process expands the EAR/WAR file into a working directory and, from that point forward, the expanded directory is considered to be the application. For these application servers, you deploy the compressed EAR/WAR file and work in the resulting directory structure. For more information, see "ColdFusion J2EE deployment and configuration" on page 37.

Deploy expanded archive as working directory On other application servers (such as JRun 4 and BEA WebLogic), the deployment process expands the EAR/WAR file into a temporary directory and (conceptually), the compressed EAR/WAR file is still considered to be the application. For these application servers, you must expand the EAR/WAR file manually, and then deploy the expanded directory structure, which becomes your working directory. For more information, see "ColdFusion J2EE deployment and configuration" on page 37.

Installing an EAR file or WAR files in Windows

You can install the ColdFusion J2EE configuration in Windows. If you are updating an existing deployment of ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7 for J2EE, see "Updating from an earlier version for J2EE" on page 36 before you continue.

Note: *The Windows installer requires a computer that supports at least 256 colors.*

Install ColdFusion in Windows (J2EE configuration)

1 Read the online version of the Release Notes for any late-breaking information or updates. For more information, see www.adobe.com/go/cf8_releasenotes.

2 Ensure that your operating system meets the system requirements described on the Adobe website at www.adobe.com/go/cf8_sysreqs.

3 Review the "Installation considerations for Windows" on page 5 and "Installation considerations for all platforms" on page 5.

4 Determine and record environment information, as described in "Preparing to install using the J2EE configuration" on page 30.

5 Determine the answers to the questions in the section "Gathering information necessary to install the J2EE configuration" on page 25

6 Close any applications that are currently running on your computer.

7 Insert the DVD or download the setup file from the Adobe website.

8 If the installation wizard does not start automatically when you insert the DVD, locate the setup.exe file on the DVD and double-click it. If you are installing from a network or a downloaded file, locate the ColdFusion installation executable file (coldfusion-80-win.exe) and double-click it.

9 Follow the instructions in the installation wizard, and let it run to completion.

10 Deploy ColdFusion and configure Java settings, as required by your application server. For more information, see "ColdFusion J2EE deployment and configuration" on page 37.

11 Open the ColdFusion Administrator to run the Configuration Wizard.

12 To install any other integrated Adobe or third-party technologies, see "Installing Integrated Technologies" on page 67.

13 Configure and manage your system, as described in "Configuring Your System" on page 75.

14 If using JRun, add the Log4J-1.2.12.jar file to the JRun server classpath (C:\Jrun4\servers\lib). By default, it is in the ColdFusion classpath(C:\JRun4\servers\CF8\cfusion-ear\cfusion-war\WEB-INF\cfusion\lib).

15 To learn about ColdFusion, read the documentation, which is accessible through the Documentation link on the Resources page of the ColdFusion Administrator.

16 Code ColdFusion CFM pages.

Store CFM pages under the web application root (either cfusion-ear\cfusion-war or cfusion-war) and access these pages using a URL of the form http://*hostname*:*portnumber*/*context-root*/*filename*.cfm, as follows:

- *hostname* The machine name, IP address, or localhost.
- *portnumber* The port number used by your application server's web server.
- *contextroot* The context root for the ColdFusion web application. For more information, see "Context root" on page 28.
- *filename* The directory path and file to display. The path is relative to the cfusion-war directory.

For example, to display a CFM file located at C:\JRun4\servers\myserver\cfusion-ear\cfusion-war\eisapp\index.cfm using the built-in JRun web server and a context root of cf8, specify the URL as http://localhost:8100/cf8/eisapp/index.cfm.

Installing an EAR file or WAR files in UNIX

You can install the ColdFusion J2EE configuration in UNIX. If you are updating an existing deployment of ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7 for J2EE, see "Updating from an earlier version for J2EE" on page 36 before you continue.

install ColdFusion in UNIX (J2EE configuration)

1 Read the online version of the Release Notes for any late-breaking information or updates. For more information, see www.adobe.com/go/cf8_releasenotes.

2 Ensure that your operating system meets the system requirements described on the Adobe website at www.adobe.com/go/cf8_sysreqs.

3 Review the "Installation considerations for UNIX" on page 6 and "Installation considerations for all platforms" on page 5.

4 Determine and record environment information, as described in "Preparing to install using the J2EE configuration" on page 30.

5 Determine the answers to the questions in the section "Gathering information necessary to install the J2EE configuration" on page 25.

6 Log in as root.

7 Copy the installation file that is appropriate for your platform and locale from the DVD or Adobe website, and save it to a directory on your local disk.

The following installation files are those for supported J2EE configuration platforms:

- coldfusion-80-lin.bin - To install on Linux.
- coldfusion-80-sol.bin - To install on Solaris.
- coldfusion-80-other.jar - To install on a UNIX platform other than Solaris or Linux.

8 Using the `cd` command, go to the directory with the installation file.

9 Start the installation with the following command:

```
./<filename> -i console
```

The installation program starts.

To use the coldfusion-80-other.jar file to install on a UNIX platform other than Solaris or Linux, enter the following command (for more information, see "Installation considerations for UNIX" on page 6):

```
java_home/bin/java -jar coldfusion-80-other.jar -i console
```

Note: *To run the UNIX installer in GUI mode, type* ***./<filename> -i gui.***

10 Follow the prompts, and let the installation program run to completion.

Note: *For security reasons, it is crucial that you do not use* root *for the run-time user. Instead, use a nonprivileged user that does not have a login shell, such as the default user account* nobody*, which exists for this type of situation.*

11 Deploy ColdFusion and configure Java settings, as required by your application server.

For more information, see "ColdFusion J2EE deployment and configuration" on page 37.

Note: *If you deployed the rds.war file, and an error message indicates that RDS is not installed or not enabled, edit the rds.properties file to match the ColdFusion context root, restart the application server, and re-open the ColdFusion Administrator.*

12 Open the ColdFusion Administrator to run the Configuration Wizard.

13 Configure and manage your system, as described in "Configuring Your System" on page 75.

14 If using JRun, add the Log4J-1.2.12.jar file to the JRun server classpath. By default it is in the ColdFusion classpath.

15 To learn about ColdFusion, read the documentation, which is accessible through the Documentation link on the Resources page of the ColdFusion Administrator.

16 Code and test ColdFusion CFM pages.

Store CFM pages under the web application root (either cfusion-ear/cfusion-war or cfusion-war) and access these pages using a URL of the form http://*hostname*:*portnumber*/*context-root*/*filename*.cfm, as follows:

- *hostname* The machine name, IP address, or localhost.
- *portnumber* The port number used by your application server's web server.
- *contextroot* The context root for the ColdFusion web application. For more information, see "Context root" on page 28.
- *filename* The directory path and file to display. The path is relative to the cfusion-war directory.

For example, to display a CFM file located at /opt/jrun4/servers/myserver/cfusion-ear/cfusion-war/eisapp/index.cfm using the built-in JRun web server and a context root of cfmx, you specify the URL as http://localhost:8100/cfmx/eisapp/index.cfm.

Installing an EAR file or WAR files in Mac OS X

You can install the ColdFusion J2EE configuration for Mac OS X. If you are updating an existing deployment of ColdFusion MX 7 for J2EE, see "Updating from an earlier version for J2EE" on page 36 before you continue.

Install ColdFusion in Mac OS X (J2EE configuration)

1 Read the online version of the Release Notes for any late-breaking information or updates.

For more information, see www.adobe.com/go/cf8__releasenotes.

2 Ensure that your operating system meets the system requirements described on the Adobe website at www.adobe.com/go/cf8_sysreqs.

3 Review the "Installation considerations for UNIX" on page 6 and "Installation considerations for all platforms" on page 5.

4 Determine and record environment information, as described in "Preparing to install using the J2EE configuration" on page 30.

5 Determine the answers to the questions in the section "Gathering information necessary to install the J2EE configuration" on page 25.

6 Log in as root.

7 Copy the installation file that is appropriate for your platform and locale from the DVD or Adobe website, and save it to a directory on your local disk.

The following installation files are those for supported J2EE configuration platforms:

- coldfusion-80-osx.zip - To install in Mac OS X.

8 Using the `cd` command, go to the directory with the installation file.

9 Start the installation by double-clicking the coldfusion-macr-osx.zip file on the desktop. The file ColdFusion 8 Installer.app is installed in the same directory. Double click this APP file to start the installation in GUI mode.

10 Follow the prompts, and let the installation program run to completion.

Note: *For security reasons, it is crucial that you do not use* root *for the run-time user. Instead, use a nonprivileged user that does not have a login shell, such as the default user account* nobody*, which exists for this type of situation.*

11 Deploy ColdFusion and configure Java settings, as required by your application server. For more information, see "ColdFusion J2EE deployment and configuration" on page 37.

Note: *If you deployed the rds.war file, and an error message indicates that RDS is not installed or not enabled, edit the rds.properties file to match the ColdFusion context root, restart the application server, and re-open the ColdFusion Administrator.*

12 Open the ColdFusion Administrator to run the Configuration Wizard.

13 Configure and manage your system, as described in "Configuring Your System" on page 75.

14 If using JRun, add the Log4J-1.2.12.jar file to the JRun server classpath. By default it is in the ColdFusion classpath.

15 To learn about ColdFusion, read the documentation, which is accessible through the Documentation link on the Resources page of the ColdFusion Administrator.

16 Code and test ColdFusion CFM pages.

Store CFM pages under the web application root (either cfusion-ear/cfusion-war or cfusion-war) and access these pages using a URL of the form http://*hostname*:*portnumber*/*context-root*/*filename*.cfm, as follows:

- *hostname* The machine name, IP address, or localhost.
- *portnumber* The port number used by your application server's web server.
- *contextroot* The context root for the ColdFusion web application. For more information, see "Context root" on page 28.
- *filename* The directory path and file to display. The path is relative to the cfusion-war directory.

For example, to display a CFM file located at /opt/jrun4/servers/myserver/cfusion-ear/cfusion-war/eisapp/index.cfm using the built-in JRun web server and a context root of cfmx, you specify the URL as http://localhost:8100/cfmx/eisapp/index.cfm.

Updating from an earlier version for J2EE

If you previously deployed ColdFusion MX for J2EE, the ColdFusion MX 6.1 J2EE configuration, or the ColdFusion MX 7 J2EE configuration on your application server, you must also perform the following steps as part of the installation procedure:

1 As appropriate for your application server, either stop the ColdFusion application and RDS application (if it is running), or stop the application server before you start the installation wizard.

2 (Windows only) If you installed the SequelLink ODBC Agent, stop the ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7 ODBC services before you start the installation wizard.

3 Copy application files to a backup directory.

4 Save settings by copying the files *cf_webapp_root*/WEB-INF/cfusion/lib/neo-*.xml to a backup directory.

5 Before you deploy ColdFusion 8, undeploy the existing ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7 application using your application-server-specific undeploy functionality.

6 Deploy ColdFusion 8 as described in "Deploying ColdFusion 8 on JRun 4" on page 38, "Deploying ColdFusion 8 on IBM WebSphere" on page 42, "Deploying ColdFusion 8 on BEA WebLogic" on page 52, "Deploying ColdFusion 8 on Oracle Application Server 10g" on page 57, or "Deploying ColdFusion 8 on JBoss Application Server" on page 60.

7 Create a directory named cf*X*settings (in which *X* is the earlier version of ColdFusion) in the *cf_webapp_root*/WEB-INF/cfusion/lib directory.

8 Copy the backed up files settings files to the ColdFusion 8 cfusion/lib/cf*X*settings directory.

9 Edit the ColdFusion 8 cfusion/lib/adminconfig.xml file by setting the value of the `runmigrationwizard` and the `migratef`*X* (in which *X* is the earlier version of ColdFusion) switch to true.

10 Restart the ColdFusion 8 application.

11 Browse to ColdFusion Administrator to run the migration wizard.

Note: *Migration from ColdFusion 4.5 or 5 to the ColdFusion MX J2EE configuration is not supported.*

ColdFusion J2EE deployment and configuration

The J2EE specification allows application servers to handle compressed and expanded deployments in a server-dependent manner; each application server has its own deployment and configuration mechanism, as the following table shows:

Application server	Deployment mechanism	Expanded or compressed deployment
JRun 4	Auto deploy to server root or deploy using the JRun Administrative Console	Expanded
IBM WebSphere	IBM WebSphere Administrative Console	Compressed
BEA WebLogic	Weblogic Administration Console/Auto deploy to server domains	Expanded
Oracle Application Server 10g	OracleAS Enterprise Manager Console	Compressed
JBOSS Application Server	Auto deploy to server root	Expanded

For basic deployment information, see your J2EE application server documentation. ColdFusion deployment instructions differ for each J2EE application server. For more information, see the following:

- "Deploying ColdFusion 8 on JRun 4" on page 38
- "Deploying ColdFusion 8 on IBM WebSphere" on page 42
- "Deploying ColdFusion 8 on BEA WebLogic" on page 52
- "Deploying ColdFusion 8 on Oracle Application Server 10g" on page 57
- "Deploying ColdFusion 8 on JBoss Application Server" on page 60

J2EE directory structure

The following table describes the directories under the *cf_webapp_root* web application directory when you use the J2EE configuration:

Directory	Description
cfdocs	Documentation for ColdFusion.
CFIDE	Files for the ColdFusion Administrator.
WEB-INF/cfclasses	Compiled ColdFusion templates in your ColdFusion applications.

Directory	Description
WEB-INF/cfc-skeletons	Support for ColdFusion components that are exported as web services.
WEB-INF/cfform	Files that support Flash forms.
WEB-INF/cftags	Templates for ColdFusion.
WEB-ING/flex	Configuration and files for LiveCycle Data Services ES.
WEB-INF/gateway	Files that support event gateways.
WEB-INF/cfusion/bin	Executable files used by ColdFusion.
WEB-INF/cfusion/cfx	CFX tag include file and examples.
WEB-INF/cfusion/charting	Files for the ColdFusion graphing and charting engine.
WEB-INF/cfusion/Custom Tags	Repository for your custom tags.
WEB-INF/cfusion/db	Sample databases for all platforms. These databases are Apache Derby databases.
WEB-INF/cfusion/jintegra	JIntegra programs, libraries, and other supporting files (for example, to integrate Java and COM code; manage access to ActiveX controls (OCXs) that are hosted in a graphical user interface (GUI) container; and register the JVM and type libraries).
WEB-INF/cfusion/lib and WEB-INF/lib	JAR, XML, property, and other files that are the foundation of ColdFusion, including functionality such as queries, charting, mail, security, Verity searches, and system probes.
WEB-INF/cfusion/logs	ColdFusion log files.
WEB-INF/cfusion/Mail	Files, including spool files, used by ColdFusion for mail.
WEB-INF/cfusion/registry	Used only in UNIX, by the `cfregistry` tag.
WEB-INF/cfusion/stubs	Compiled code for web services.
WEB-INF/cfusion/verity	Verity collections.

Deploying ColdFusion 8 on JRun 4

When you deploy ColdFusion on an existing version of JRun 4, you must expand the EAR file or WAR files manually before deployment.

If you are updating an existing deployment of ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7 for J2EE, you must undeploy ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7 for J2EE before you deploy ColdFusion 8, as described in "Updating from an earlier version for J2EE" on page 36.

Expand the EAR file

1 Expand the EAR file by performing the following steps:

a Open a console window, navigate to the directory that contains the EAR file, and make a new directory named cfusion-ear:

```
md cfusion-ear (mkdir cfusion-ear on UNIX)
```

b Change to the cfusion-ear directory and expand the cfusion.ear file with the `jar` command:

```
cd cfusion-ear
java_home/bin/jar -xvf ../cfusion.ear
```

This expands the cfusion.ear file into cfusion.war and rds.war (rds.war is not included if you specified a context root of / when you ran the installation wizard).

c In cfusion-ear, make a new directory named cfusion-war.

```
md cfusion-war (mkdir cfusion-war on UNIX)
```

d Change to the cfusion-war directory and expand the cfusion.war file with the `jar` command:

```
cd cfusion-war
java_root/bin/jar -xvf ../cfusion.war
```

This expands the cfusion.war file.

e (If rds.war exists) Go up one level to cfusion-ear, make a new directory named rds-war.

```
cd ..
md rds-war (mkdir rds-war on UNIX)
```

f (If rds.war exists) Change to the rds-war directory and expand rds.war with the `jar` command:

```
cd rds-war
java_root/bin/jar -xvf ../rds.war
```

This expands rds.war.

g Go up one level to the cfusion-ear file, and delete the cfusion.war and rds.war files:

```
cd ..
del cfusion.war (rm cfusion.war on UNIX)
del rds.war (rm rds.war on UNIX)
```

h Open the cfusion-ear/META-INF/application.xml file in a text editor.

i Change the `web-uri` element from cfusion.war to cfusion-war (or the name of the directory that contains the expanded cfusion.war file). Change the `web-uri` element for rds.war to rds-war. A directory name in the `web-uri` element cannot contain a dot.

j Save the application.xml file.

2 Deploy ColdFusion 8 by copying the cfusion-ear directory structure to the *jrun_root*/servers/*servername* directory. If auto deploy is enabled, JRun 4 either deploys the application immediately (if the JRun server is running), or when you start the JRun server.

3 Review the server log (*jrun_root*/logs/*servername*-event.log) to ensure that ColdFusion 8 deployed successfully.

When using WAR deployment, JRun uses the directory name of the expanded cfusion.war file as the context root. You can optionally modify the context root. By setting the context root to slash (/), you do not have to include the context root in the URL when accessing CFM pages.

Set the context root to /

1 Stop the JRun server that is running ColdFusion.

2 Delete the jrun_root/servers/servername/default-ear directory and all subdirectories.

3 Start the JRun server that is running ColdFusion.

4 Ensure that the admin JRun server is running.

5 Start the JRun server instance "admin" and browse to http://localhost:8000 from a browser on the computer where JRun is installed to access the JRun Management Console (JMC).

6 Click the server in the left pane.

7 Click the cfusion Web Application.

8 Change the context path to / (instead of /cfusion).

9 Click Apply.

10 Restart the JRun server that is running ColdFusion.

You must deploy the rds.war file to a context root of /CFIDE (all uppercase). When deploying on JRun, this means that you should expand the rds.war file into a directory named CFIDE.

Deploy ColdFusion 8 on JRun 4 as a WAR file

1 Create a directory named cfusion.

The directory can have any name, but these instructions assume a directory name of cfusion under your JRun server instance. This directory becomes the context root into which ColdFusion is deployed. For example, if you are installing ColdFusion in the default JRun server, the directory is /opt/jrun4/servers/default/cfusion.

2 Create a directory named CFIDE.

This directory is the context root into which the remote development service (RDS) application is deployed, for example, /opt/jrun4/servers/default/CFIDE.

3 Stop the JRun server to which you want to deploy ColdFusion by using the JRun Launcher (jrun_root/bin/jrun) or type jrun_root/bin/jrun stop server_name in a console window.

4 If you haven't done so already, open a console window, navigate to the cfusion directory, and use the jar utility to uncompress the cfusion.war file, by using the following commands:

```
cd jrun_root/jrun4/servers/servername/cfusion
java_home/bin/jar -xvf cfmx_install_directory/cfusion.war
```

The directory *jrun_root* refers to the directory in which you installed JRun 4, for example, C:\JRun 4 or /opt/jrun4. Replace *servername* with the name of the server to which you are deploying ColdFusion. For example, if you installed ColdFusion in the default JRun server, replace *servername* with `default`.

5 Navigate to the CFIDE directory and use the jar utility to uncompress the rds.war file, using the following commands:

```
cd jrun_root/jrun4/servers/servername/CFIDE (or cd ../CFIDE)
java_home/bin/jar -xvf cfmx_install_directory/rds.war
```

6 Configure JVM settings through the Settings panel of the JRun Management Console (JMC) or by using a text editor to modify the jrun_root/bin/jvm.config file.

7 To enable COM support (Windows only), add the following jIntegra binary directories to the JVM's native library path (`java.library.path`):

```
WEB-INF/cfusion/jintegra/bin
WEB-INF/cfusion/jintegra/bin/international
```

8 (optional) To enable CORBA support, copy the vbjorb.jar file to the WEB-INF/cfusion/lib directory and define the following argument:

```
-Xbootclasspath/a:"cf_webapp_root/WEB-INF/cfusion/lib/vbjorb.jar"
```

9 To enable charting (UNIX only), **d**efine the following argument:

```
-Djava.awt.graphicsenv=com.gp.java2d.ExGraphicsEnvironment"
```

and specify

```
com.gp.java2d.ExHeadlessGraphicsEnvironment
```

instead of

```
com.gp.java2d.ExGraphicsEnvironment.
```

10 In addition to enabling sandbox security in the ColdFusion Administrator, the application server must be running a security manager (`java.lang.SecurityManager`) and you must define the following JVM arguments:

```
-Djava.security.manager
-Djava.security.policy="cf_webapp_root/WEB-INF/cfusion/lib/coldfusion.policy"
-Djava.security.auth.policy="cf_webapp_root/WEB-INF/cfusion/lib/neo_jaas.policy"
```

11 To use cfregistry in Windows, to use the `cfreport` tag for Crystal Reports, and to use any C++ CFX custom tags, you must add cfusion/lib to the Java library path. Add the following directory to the JVM's native library path (`java.library.path`):

```
WEB-INF/cfusion/lib
```

12 If you are running Solaris without X Windows, to use the `cfdocument` tag, you must set the headless switch to true in the jvm.config file, as follows:

```
java.awt.headless=true
```

13 Start the JRun server the way you stopped it in step 3, either by using the JRun Launcher or by typing `jrun_root/bin/jrun start server_name` in a command window. If autodeploy is enabled, JRun 4 deploys the application automatically when you start the JRun server.

14 Review the server log (jrun_root/logs/servername-event.log) to ensure that ColdFusion deployed successfully.

15 Start the ColdFusion Administrator to run the Configuration Wizard.

Deploying ColdFusion 8 on IBM WebSphere

The following instructions tell you how to deploy ColdFusion 8 on IBM WebSphere Application Server (WAS) 5.1, 6.1 and Network Deployment (ND).

The following terms refer to WebSphere and ColdFusion directories:

websphere_root The directory in which IBM WebSphere Application Server is installed; for example, C:\Program Files\WebSphere in Windows, and /opt/WebSphere in UNIX.

cf_webapp_root The directory to which the ColdFusion web application is deployed; for example, C:\Program Files\WebSphere\AppServer\installedApps\MyHost\cfusion.ear\cfusion.war in Windows, and /opt/WebSphere/AppServer/installedApps/MyHost/cfusion.ear/cfusion.war in UNIX.

java_home The root directory of your Java 2 software development kit (J2SDK); for example, C:\j2sdk1.4.1.

When you deploy ColdFusion on an existing version of IBM WebSphere, you must expand the EAR file or WAR files manually before deployment.

Expand the EAR file

1 Open a console window, navigate to the directory that contains the EAR file, and make a new directory named cfusion-ear:

```
md cfusion-ear (mkdir cfusion-ear on UNIX)
```

2 Change to the cfusion-ear directory and expand the cfusion.ear file with the `jar` command:

```
cd cfusion-ear
java_home/bin/jar -xvf ../cfusion.ear
```

This expands the cfusion.ear file into cfusion.war and rds.war (rds.war is not included if you specified a context root of / when you ran the installation wizard).

3 In cfusion-ear, make a new directory named cfusion-war.

```
md cfusion-war (mkdir cfusion-war on UNIX)
```

4 Change to the cfusion-war directory and expand the cfusion.war file with the `jar` command:

```
cd cfusion-war
java_root/bin/jar -xvf ../cfusion.war
```

This expands the cfusion.war file.

5 (If rds.war exists) Go up one level to cfusion-ear, make a new directory named rds-war.

```
cd ..
md rds-war (mkdir rds-war on UNIX)
```

6 (If rds.war exists) Change to the rds-war directory and expand rds.war with the `jar` command:

```
cd rds-war
java_root/bin/jar -xvf ../rds.war
```

This expands rds.war.

7 Go up one level to the cfusion-ear file, and delete the cfusion.war and rds.war files:

```
cd ..
del cfusion.war (rm cfusion.war on UNIX)
del rds.war (rm rds.war on UNIX)
```

8 Open the cfusion-ear/META-INF/application.xml file in a text editor.

9 Change the `web-uri` element from cfusion.war to cfusion-war (or the name of the directory that contains the expanded cfusion.war file). Change the `web-uri` element for rds.war to rds-war. A directory name in the `web-uri` element cannot contain a dot.

10 Save the application.xml file.

On WebSphere ND, deploying multiple application server clones on a single computer is commonly referred to as vertical clustering. Vertical clustering leverages the computer's processing power to obtain a higher level of efficiency; however, if there is total computer failure, no application server instances are available. The applications deployed in a vertical cluster share the same file system. Deploying the multiple application servers on multiple computers is commonly referred as horizontal clustering; it provides the highest level of failover and scaling. The steps you perform to deploy ColdFusion 8 in a clustered environment are the same, regardless of clustering method, because the WebSphere Network Deployment Manager manages the cluster.

To use LiveCycle Data Services ES, you must be running WebSphere 5.1.1 Business Integration.

Deploy ColdFusion 8 on WebSphere 5.1 or 6.1

1 Start the IBM WebSphere Application Server, if it is not running.

2 Open the IBM WebSphere Administrative Console, if it is not running.

3 Select Applications > Install New Application.

4 When the Preparing for the Application Installation page appears, in the text box for the local file system, enter the path to the EAR file that you installed when you installed ColdFusion; for example, C:\ColdFusion8\cfusion.ear.

If you are running the Administrative console from a browser that is not on the same system on which WebSphere is running, that is, not from localhost, use the Remote file system option (Server Path on WebSphere 5.1), which enables directory browsing on the server file system.

5 Leave the Context Root box empty and click Next.

6 Accept the default values on the second Select Installation Options page (Preparing for the Application Installation on WebSphere 5.1), if appropriate for your WebSphere configuration, and then click Next.

WebSphere might display an Application Security Warnings page with a message at the bottom of the page that starts with "ADMA0080W: A template policy file without any permission set is included in the 1.2.x enterprise application." You can ignore this warning.

7 If you have multiple application servers, select the application server in which to install the ColdFusion application and RDS support, and then click Next.

8 If you selected to install LiveCycle Data Services ES , the Map Resource References to resources panel appears. Enter wm/default as the target for the resource wm/MessagingWorkManager.

9 When the Map Virtual Hosts for Web Modules panel appears, select the virtual host or hosts in which to install the ColdFusion 8 application and Remote Development Services (RDS) support, and then click Next.

RDS must be on the same virtual host and port as ColdFusion 8.

10 When the Summary panel appears, review the installation configuration, and then click Finish.

11 When the Application Adobe ColdFusion 8 Installed Successfully message appears on the Installing page, select Save To Master Configuration, and then select Save on the Save page to save your workspace.

If you changed the application name from the default, the message uses your application name.

12 Start the enterprise application named Adobe ColdFusion 8.

13 Browse to the ColdFusion Administrator to run the Configuration Wizard.

Note: *You must copy the version of tools.jar that the application server uses to the cfusion/lib directory.*

Deploy ColdFusion 8 on WebSphere ND

1 Start the IBM WebSphere Application Server, if it is not running.

2 Open the IBM WebSphere Administrative Console, if it is not running.

3 Select Applications > Install New Application.

4 When the Preparing for the Application Installation page appears, in the text box for the local file system, enter the path to the EAR file that you installed when you installed ColdFusion; for example, C:\ColdFusion8\cfusion.ear.

If you are running the Administrative console from a browser that is not on the same system on which WebSphere is running, that is, not from localhost, use the Remote file system option (Server Path on WebSphere 5.1), which enables directory browsing on the server file system.

5 Leave the Context Root box empty and click Next.

6 Accept the default values on the second Select Installation Options page (Preparing for the Application Installation on WebSphere 5.1), if appropriate for your WebSphere configuration, and then click Next.

WebSphere might display an Application Security Warnings page with a message at the bottom of the page that starts with "ADMA0080W: A template policy file without any permission set is included in the 1.2.x enterprise application." You can ignore this warning.

7 Select the cluster on which to install the ColdFusion application and RDS support, and then click Next.

8 If you selected to install LiveCycle Data Services ES , the Map Resource References to resources panel appears. Enter wm/default as the target for the resource wm/MessagingWorkManager.

9 When the Map Virtual Hosts for Web Modules panel appears, select the virtual host or hosts in which to install the ColdFusion 8 application and Remote Development Services (RDS) support, and then click Next.

RDS must be on the same virtual host and port as ColdFusion 8.

10 When the Summary panel appears, review the installation configuration, and then click Finish.

11 When the Application Adobe ColdFusion 8 Installed Successfully message appears on the Installing page, select Save To Master Configuration, and then select Save on the Save page to save your workspace.

If you changed the application name from the default, the message uses your application name.

12 Start the enterprise application named Adobe ColdFusion 8.

13 Browse to the ColdFusion Administrator to run the Configuration Wizard.

Note: *You must copy the version of tools.jar that the application server uses to the cfusion/lib directory.*

Enable sandbox security

1 Do the following to ensure that ColdFusion sandbox security secures Java access to files and network resources:

a On the WebSphere Administrative Console Security > Secure Administration panel, ensure that the Java 2 Security option is selected.

b Click Apply and then click Save.

2 Add the following lines to the Standard Properties That Can Be Read By Anyone section of the JVM's security policy file, java.policy. (For example, this file can be located in C:\Program Files\WebSphere\AppServer\java\jre\lib\security\java.policy):

```
grant {
permission java.security.AllPermission;
};
```

Configure operating system-specific binary support in Windows

This process is required to support the following features that use binaries that are specific to your operating system:

- CFX tags written in C++
- Microsoft Access driver with Unicode support

You do this by configuring the search paths to find the required binary files, which are located in the *cf_webapp_root*\WEB-INF\cfusion\lib directory.

Configure search paths

1 Make a backup copy of the setupCmdLine.bat file, located in the *websphere_root*\AppServer\bin directory.

2 Open the original file for editing and add the following on a single line before the line that starts with SET WAS_CLASSPATH:

```
SET CF_APPS_PATH=cf_webapp_root\WEB-INF\cfusion\lib
```

Replace *cf_webapp_root* with the path to your web application directory; for example, enter the following:

```
SET CF_APPS_PATH=%WAS_HOME%\installedApps\%WAS_CELL%\
Adobe_ColdFusion_8.ear\cfusion.war\WEB-INF\cfusion\lib
```

3 Add the CF_APPS_PATH variable to the WAS_CLASSPATH by appending the following text to the path statement:

```
;%CF_APPS_PATH%
```

The WAS_CLASSPATH line should look similar to the following:

```
SET
WAS_CLASSPATH=%WAS_HOME%/properties;%WAS_HOME%/lib/bootstrap.jar;%WAS_HOME%/lib/j2ee.
jar;%WAS_HOME%/lib/lmproxy.jar;%WAS_HOME%/lib/urlprotocols.jar;%CF_APPS_PATH%
```

4 Save the file.

5 Add the full path to the *cf_webapp_root*\WEB-INF\cfusion\lib directory to the WAS_PATH variable in the setupCmdLine.bat file. The WAS_PATH line should look similar to the following:

```
SET WAS_PATH=%WAS_HOME%\bin;%JAVA_HOME%\bin;%JAVA_HOME%\jre\bin;%PATH%;C:\Program
Files\IBM\WebSphere MQ\bin;C:\Program Files\IBM\WebSphere MQ\java\bin;C:/Program
Files/IBM/WebSphere MQ/WEMPS\bin;%CF_APPS_PATH%;
```

6 Save the file.

Enable COM support for Windows

You enable Component Object Model (COM) support in Windows after installing ColdFusion 8 so that you can use the `cfreport` tag with Crystal Reports. COM support is not required for the ColdFusion Report Builder or any reports that you create with the ColdFusion reporting feature.

1 Make a backup copy of the setupCmdLine.bat file, which is located in the *websphere_root*\AppServer\bin directory.

2 Open the original file and add the following on a single line:

```
SET PATH=%PATH%;cf_webapp_root\WEB-INF\cfusion\jintegra\bin;cf_webapp_root\WEB-
INF\cfusion\jintegra\bin\international
```

Replace *cf_webapp_root* with the path to your web application root directory, for example:

```
SET
PATH=%PATH%;%WAS_HOME%\installedApps\%WAS_CELL%\AdobeColdFusion8.ear\cfusion.ear\cfus
ion.war\WEB-
INF\cfusion\jintegra\bin;%WAS_HOME%\installedApps\%WAS_CELL%\Adobe_ColdFusion_8.ear\c
fusion.war\WEB-INF\cfusion\jintegra\bin\international
```

3 Save the file.

In some cases, you might also have to do the following to register the Microsoft Type viewer:

4 Open a console window and go to the *cf_webapp_root*\WEB-INF\cfusion\lib directory.

5 Register TypeViewer.dll by issuing the following command:

```
regsvr32 TypeViewer.dll
```

Configure operating system-specific binary support for Solaris and Linux

This process is required to support CFX tags written in C++ that use binaries that are specific to your operating system.

You must configure the search paths to find the required binary files, which are located in the *cf_webapp_root*/WEB-INF/cfusion/lib directory.

Configure search path

1 Make a backup copy of the startServer.sh file, which is located in the *websphere_root*/AppServer/bin directory.

The path specifications in these instructions assume that you deployed ColdFusion using the standard application name (Adobe ColdFusion 8) and did not rename the application.

2 Open the original file, and in the PLATFORM case block, just above the LD_LIBRARY_PATH or LIBPATH line, add the following entry on a single, long line:

On Solaris:

```
CFMX_APPS_PATH=cf_webapp_root/WEB-INF/cfusion/lib
```

Replace *cf_webapp_root* with the path to your web application root directory; for example:

```
CF_APPS_PATH="$WAS_HOME"/installedApps/"$WAS_CELL"/
    Adobe_ColdFusion_8.ear/cfusion.war/WEB-INF/cfusion/lib
```

On Linux:

```
CF_APPS_PATH=cf_webapp_root/WEB-INF/cfusion/lib
```

Replace *cf_webapp_root* with the path to your web application root directory; for example:

```
CF_APPS_PATH="$WAS_HOME"/installedApps/"$WAS_CELL"/
Adobe_ColdFusion_8.ear/cfusion.war/WEB-INF/cfusion/lib
```

3 Append the CF_APPS_PATH environment variable to the LD_LIBRARY_PATH entry. The resulting line should be similar to the following:

```
LD_LIBRARY_PATH="$WAS_LIBPATH":$LD_LIBRARY_PATH:$CF_APPS_PATH
```

4 Save the file and restart your WebSphere Application Server.

Enable ColdFusion charting and graphing support for UNIX

1 Open the WebSphere Administrative Console.

2 In the left navigation bar, select Node_name > Servers > Application Servers.

3 Select your J2EE application server; for example, Server1.

4 Under Java and Process Management, select Process Definition.

5 On the Process Definition page, select Java Virtual Machine in the Additional Properties box.

6 If you are running ColdFusion 8 on a system without a monitor, do the following:

a In the Additional Properties box at the bottom of the page, select Custom Properties.

b On the Custom Properties page, select New and add a system property, completing the fields as follows:

```
Name java.awt.headless
Value true
```

7 Click OK.

8 Save the master configuration file.

Disable RDS

For security reasons, Adobe recommends that you disable RDS on a production server. If you enable RDS when you install ColdFusion 8, you can disable it at a later time, as the following instructions describe.

If you disable RDS, the following ColdFusion 8 features do not work:

- The Browse Server button in the ColdFusion Administrator (for example, on the ColdFusion Mappings page)
- The Query Builder and charting in the ColdFusion Report Builder

1 Stop ColdFusion.

2 In the WebSphere Administrative Console, select the Applications > Enterprise Applications panel, select the Adobe ColdFusion 8 application, and then click Stop.

3 Do the following in both the *cf_webapp_root*\WEB-INF\web.xml and the *websphere_root*\AppServer\config\cells\NodeName\applications\cf_application_name.ear\ deployments\cf_application_name\cfusion.war\WEB-INF\web.xml files (or the equivalent paths in UNIX). For example, change the following files:

- C:\Program Files\WebSphere\AppServer\installedApps\MYNODE\ cfusion.ear\cfusion.war\WEB-INF\web.xml
- C:\Program Files\WebSphere\AppServer\config\cells\MYNODE\applications\ cfusion.ear\deployments\Adobe ColdFusion 8\cfusion.war\ WEB-INF\web.xml

a Back up the ColdFusion web module web.xml file.

b Open the original web.xml file for editing.

c Comment out the RDS Servlet definition, as follows:

```
<!-- <servlet id="coldfusion_servlet_8789"> <servlet-name>RDSServlet</servlet-name>
<display-name>RDS Servlet</display-name><servlet-
class>coldfusion.bootstrap.BootstrapServlet</servlet-class> <init-param
id="InitParam_103401311065856789"><param-name>servlet.class</param-name> <param-
value>coldfusion.rds.RdsFrontEndServlet</param-value></init-param> </servlet> -->
```

The text in the servlet definition might vary.

d Comment out the RDS Servlet mapping, as the following example shows:

```
<!--
<servlet-mapping id="coldfusioon_mapping_9">
<servlet-name>RDSServlet</servlet-name>
<url-pattern>/CFIDE/main/ide.cfm</url-pattern>
</servlet-mapping>
-->
```

The servlet-mapping id value might vary.

e Save the file.

4 Restart the ColdFusion 8 application.

5 If your ColdFusion 8 application context root is something other than /, disable or undeploy the RDS redirector web module by doing the following:

a In the WebSphere Administrative Console, select cell_name > Applications > Enterprise Applications.

b Stop the Adobe ColdFusion 8 application if it is running.

c Select Adobe ColdFusion 8 Application, select Manage Modules and then select the check box for ColdFusion RDS application, and then click Remove.

Enable web services

To enable web services, you must copy the tools.jar file from the websphere/appserver/java/lib directory to the cfusion/lib directory.

Apply application server configuration

To apply appliation server configuration, you must restart the application server.

Configure ColdFusion 8

You must ensure that the following settings and practices are in place before using WebSphere Application Server ND:

Event Gateway Ensure that the startup mode of the Socket gateway instances is set to manual. In particular, do not set it to Automatic when using a vertical cluster. Select one of the instances in the vertical cluster and start the Socket gateway on that instance manually.

Session Replication Either avoid ColdFusion-specific data types or serialize them to WDDX and store them in session scope as strings.

ColdFusion Administrator:

- In a vertical cluster environment, avoid concurrent changes to the same service.
- In a horizontal cluster environment, each server has its own ColdFusion Administrator. You must make changes once per server.
- In a vertical cluster environment, the ColdFusion Administrator scheduled tasks are scheduled on all servers.

Verity Server Only one Verity Search Server can run on each server computer.

ColdFusion Verity licensing does not allow a ColdFusion `cfsearch` tag to search multiple Verity Search Server computers. For a horizontal cluster to interact with a central Verity Search Server, you must purchase K2 Enterprise from Verity.

Compilation Use precompiled classes and ensure that the Trusted Cache setting is enabled.

Deploying ColdFusion 8 on BEA WebLogic

The following instructions tell you how to deploy ColdFusion 8 on BEA WebLogic 7, 8.1, 9.2, and 10. You can deploy ColdFusion 8 on BEA WebLogic using either an expanded EAR file or WAR files.

The following terms refer toJRun and ColdFusion directories:

cfmx_install_directory The directory that contains the files extracted by the ColdFusion install, for example, C:\cf8 or /opt/cf8.

wl_root The directory that contains WebLogic, for example, C:\bea.

wldomain_root The directory that contains the WebLogic domain into which you deployed ColdFusion.

cf_webapp_root The directory into which you deployed the ColdFusion web application, for example, C:\bea\user_projects\cfdomain\applications\cfusion-war.

java_home The root directory of your Java 2 software development kit (J2SDK); for example, C:\j2sdk1.6.

Install ColdFusion 8 on WebLogic

1 Run the ColdFusion installation wizard, choosing the J2EE configuration.

The installation wizard places the WAR files in the install directory.

2 Determine the WebLogic domain in which to deploy ColdFusion 8. Optionally, create a domain.

3 Because ColdFusion 8 must run from an expanded directory structure, expand the cfusion.war and rds.war files manually, and expand the web applications by doing the following:

a Open a console window, navigate to the directory that contains the WAR files, and create a directory for the ColdFusion WAR file (named whatever you want the context root to be) and the RDS WAR file (named CFIDE):

```
cd cf_install_directory
md cfusion (Windows, mkdir cfusion on UNIX)
md CFIDE (Windows, mkdir CFIDE on UNIX)
```

b Change to the cfusion directory and expand the cfusion.war file with the jar command:

```
cd cfusion
java_home/bin/jar -xvf ../cfusion.war
```

c Go up one level to the install directory:

```
cd ..
```

d Go to the CFIDE directory and expand the rds.war file with the jar command:

```
cd CFIDE
```

```
java_home/bin/jar -xvf ../rds.war
```

4 Open the weblogic.policy file. On WebLogic 10, the file is located in the *BEA_HOME*/wlserver_10.0/server/lib/ directory. In a text editor, comment out the restrictive permissions, and add permission java.security.AllPermission; to the default permissions section, as the following example shows:

```
...
// default permissions granted to all domains
grant {
permission java.security.AllPermission;
/*

    permission java.util.PropertyPermission "java.version", "read";
    permission java.util.PropertyPermission "java.vendor", "read";
 ...
    permission java.util.PropertyPermission "java.vm.name", "read";
*/
};
...
```

5 Deploy the cfusion and CFIDE directory structures using your site-specific WebLogic deployment method.

6 Ensure that jintegra.jar is in the classpath in the startup script.

7 Review the console messages and server log to ensure that ColdFusion 8 deployed successfully.

8 Start the ColdFusion Administrator, which runs the Configuration Wizard.

9 To install any other integrated Adobe or third-party technologies, see "Installing Integrated Technologies" on page 67.

10 Configure and manage your system, as described in "Configuring Your System" on page 75.

11 To learn about ColdFusion, read the documentation, which is accessible through the Documentation link on the Resources page of the ColdFusion Administrator.

Note: *You must copy the version of tools.jar that the application server uses to the cfusion/lib directory.*

Configure operating system-specific binary support in Windows

1 Locate the startup script for the WebLogic domain, which is typically the startWebLogic cmd file, which is located in the *wldomain_root*\bin directory.

2 Make a backup copy of this file.

3 Open the startup script.

4 Establish the following basic variables at the beginning of the script:

- CF_WEB_INF
- CF_SHARED_LIB

For example:

```
SET CF_WEB_INF=cf_webapp_root\WEB-INF
SET CF_SHARED_LIB=%CF_WEB_INF%\cfusion\lib
```

5 Save the startup script and restart the WebLogic Server.

Enable COM support for Windows

1 Open the startup script for the WebLogic domain, which is typically the startWebLogic cmd file, which is located in the wldomain_root\bin directory.

2 Establish the following variables:

- JINTEGRA_PATH
- PRE_CLASSPATH
- PRE_PATH

For example:

```
SET JINTEGRA_PATH= %CF_WEB_INF%\cfusion\jintegra\bin;
%CF_WEB_INF%\cfusion\jintegra\bin\international
SET PRE_CLASSPATH=%CF_SHARED_LIB%\jintegra.jar
SET PRE_PATH=%CF_SHARED_LIB%;%JINTEGRA_PATH%
```

Configure operating system-specific binary support in UNIX

1 Locate the startup script for the WebLogic domain, which is typically the startWebLogic.sh file, which is located in the wldomain_root\bin directory.

2 Make a backup copy of this file.

3 Open the startup script.

4 Establish the following basic variables at the beginning of the script:

- CF_WEB_INF
- CF_SHARED_LIB

For example:

```
CF_WEB_INF=cf_webapp_root/WEB-INF
CF_SHARED_LIB=${CF_WEB_INF}/cfusion/lib
```

5 Save the startup script and restart the WebLogic Server.

Enable access to Verity binary files in UNIX

1 Open the startup script for the WebLogic domain, which is typically the startWebLogic.sh file, which is located in the wldomain_root\bin directory.

2 Establish the following variables:

- CF_SHARED_LIBS
- LD_LIBRARY_PATH

For example:

```
# Set up shared library path for ColdFusion to pick up Verity
# shared libs. Use path syntax - entries separated by colon.
# Use _ss026/bin for Solaris and _ilnx21/bin for Linux
# CF_SHARED_LIBS="${CF_SHARED_LIB}:${CF_SHARED_LIB}/_ss026/bin"
CF_SHARED_LIBS="${CF_SHARED_LIB}:${CF_SHARED_LIB}/_ilnx21/bin"
LD_LIBRARY_PATH="${CF_SHARED_LIBS}:${LD_LIBRARY_PATH}"
```

3 Save the startup script and restart the WebLogic Server.

Enable ColdFusion security in Windows

1 Open the startup script for the WebLogic domain, which is typically the startWebLogic cmd file, which is located in the wldomain_root\bin directory.

2 Establish or append to the following variable:

- CF_SECURITY_JVM_OPTIONS
- MEM_ARGS

  If you are not using JRockit, append -Xms32m -Xmx512m -Xss64k -XX:MaxPermSize=128m to the existing MEM_ARGS line of the startup script.

  If you are using JRockit, append -Xms32m -Xmx512m -Xss64k to the existing MEM_ARGS line of the startup script.

- JAVA_OPTIONS

  Append the CF_SECURITY_JVM_OPTIONS variable to the existing JAVA_OPTIONS line of the startup script)

For example:

```
@rem Security options are only required if enabling sandbox security
```

```
SET CF_SECURITY_JVM_OPTIONS="-Djava.security.manager"
@rem You must append %CF_SECURITY_JVM_OPTIONS% to the existing JAVA_OPTIONS value.
set JAVA_OPTIONS=-
Dweblogic.security.SSL.trustedCAKeyStore=C:\BEA_HOME\server\lib\cacerts
%CF_SECURITY_JVM_OPTIONS% %CF_COM_JVM_OPTIONS%
@rem You must append the following to the existing MEM_ARGS value.
@rem -Xms32m -Xmx512m -Xss64k -XX:MaxPermSize=128m
```

3 Save the startup script and restart the WebLogic Server.

Enable ColdFusion security and graphing support in UNIX

1 Open the startup script for the WebLogic domain, which is typically the startWebLogic.sh file, which is located in the wldomain_root\bin directory.

2 Establish or append to the following variables:

- CF_SECURITY_JVM_OPTIONS
- CF_GRAPHING_JVM_OPTIONS
- MEM_ARGS

  If you are not using JRockit, append -Xms32m -Xmx512m -Xss64k -XX:MaxPermSize=128m to the existing MEM_ARGS line of the startup script.

  If you are using JRockit, append -Xms32m -Xmx512m -Xss64k to the existing MEM_ARGS line of the startup script.

- JAVA_OPTIONS

  Append the CF_SECURITY_JVM_OPTIONS variable to the existing JAVA_OPTIONS line of the startup script)

For example:

```
# Security options are only required if enabling sandbox security
CF_SECURITY_JVM_OPTIONS="-Djava.security.manager"
CF_GRAPHING_JVM_OPTIONS="-Djava.awt.headless=true"
# You must append ${CF_SECURITY_JVM_OPTIONS} and ${CF_GRAPHING_JVM_OPTIONS}
# to the existing JAVA_OPTIONS value.
# JAVA_OPTIONS="default java options ${CF_SECURITY_JVM_OPTIONS}
${CF_GRAPHING_JVM_OPTIONS}"
# You must append the following to the MEM_ARGS variable coded
# in the server startup file:
# "-Xmx512m -XX:MaxPermSize=128m"
```

3 Save the startup script and restart the WebLogic Server.

Deploying ColdFusion 8 on Oracle Application Server 10g

The following instructions assume that you installed the J2EE configuration of ColdFusion 8 and that the EAR file to deploy is under C:\ColdFusion_J2ee\cfusion.ear.

Before you deploy ColdFusion on Oracle 10g, ensure that the following is true:

- Oracle Application Server 10g is installed and running.
- You set up an OC4J J2EE container for the ColdFusion installation. Adobe recommends that you create an OC4J instance for ColdFusion to avoid potential classpath issues with other applications.
- (Recommended, but not required) You created an OC4J instance. To do so, connect to the Oracle Application Server using Enterprise Manager and create a new OC4J instance. By default the HTTP URL is http://machineName:1810. If 1810 is unavailable, the next available port in sequential order is used.
- You increased the heap size to at least 256 MB (although 512 MB is preferred). To do so, select the OC4J instance in Enterprise Manager, and select Administration / Server Properties. Under the Command Line Options category, add -Xmx256M to the Java Options, and then restart the OC4J instance.

Deploy ColdFusion 8 on Oracle 10g

1. Ensure that the application server and the OC4J instance are running.
2. Open a Windows command prompt and go to the oracle_root/dcm/bin directory.
3. Deploy the ColdFusion 8 application by using the command-line tool dcmctl.bat, as follows:

```
Dcmctl deployapplication -application cf_app -file c:\ColdFusion_J2ee\cfusion.ear -
component oc4j_instance
```

4. Edit the oracle_root/j2ee/oc4j_instance/config/java2.policy file by adding the following to the end of the file:

```
grant { permission java.security.AllPermission; };
```

5. Start the ColdFusion Administrator, which runs the Configuration and Settings Migration Wizard.

Note: *To enable Livecycle Data Services ES on Oracle AS, you must specify the following JVM argument in the ColdFusion Administrator:* `-Doc4j.jmx.security.proxy.off=true`

You must perform some configuration steps to enable support for CFX tags written in C++, which binary files that are specific to your operating system.

Configure operating system-specific binary support for Windows

1. Connect to Oracle AS 10g using Enterprise Manager.
2. Go to oc4j_instance/Administration/Server Properties.

3 Under the Environment Variables category, select Add Environment Variable.

4 Enter PATH as the name.

5 Enter $ORACLE_HOME\j2ee\ oc4j_instance\applications\ cf_app\cfusion\WEB-INF\cfusion\lib; as the value.

6 Ensure that the Append option is selected.

7 Select Apply.

8 When the Enterprise Manager prompts you to restart, select the restart option.

Configure operating system-specific binary support for Solaris and Linux

1 Connect to Oracle AS 10g using Enterprise Manager.

2 Go to oc4j_instance/Administration/Server Properties.

3 Under the Environment Variables category, select Add Environment Variable.

4 Enter LD_LIBRARY_PATH as the name.

5 Enter $ORACLE_HOME/j2ee/oc4j_instance /applications/cf_app /cfusion/WEB-INF/cfusion/lib; as the value.

6 Ensure that the Append option is selected.

7 Select Apply.

8 When the Enterprise Manager prompts you to restart, select the restart option.

You must enable Component Object Model (COM) support in Windows after installing ColdFusion 8 to use the `cfreport` tag with Crystal Reports. It is not required for the ColdFusion Report Builder or any reports that you create with the ColdFusion reporting feature.

Enable COM support

1 In Oracle AS 10g Enterprise Manager, go to oc4j_instance /Administration/Server Properties.

2 In the Environment Variables category, ensure that the entry PATH already exists. If not, follow the instructions to enabling features with operating system-specific binaries.

3 Add $ORACLE_HOME\j2ee\oc4j_instance\applications\cf_app\cfusion\WEB-INF\cfusion\jintegra\bin; $ORACLE_HOME\j2ee\oc4j_instance\applications\cf_app \cfusion\WEB-INF\cfusion\jintegra\bin\international as the value.

4 Ensure that the Append option is enabled.

5 Select Apply.

6 When the Enterprise Manager prompts you to restart, select the restart option.

7 In some cases, you might also have to do the following to register the Microsoft Type viewer:

   a Open a console window and go to cf_webapp_root\WEB-INF\cfusion\lib.

   b Register TypeViewer.dll by issuing the following command:

```
regsvr32 TypeViewer.dll
```

The following steps configure your application server to useColdFusion 8 charting and graphing on AIX, Linux, and Solaris systems. This step is not required to enable charting and graphing in Windows.

Enable charting and graphing

1 In Oracle AS 10g Enterprise Manager, go to oc4j_instance/Administration/Server Properties.

2 If the following entry does not exist in the Java Option under the Command Line Options category, add it:

```
-Djava.awt.headless=true
```

3 Select Apply.

4 When the Enterprise Manager prompts you to restart, select the restart option.

Disable the RDS web module

If you installed ColdFusion 8 at a context root other than /, use the following procedure to disable the RDS redirector web module without undeploying it.

If you disable (or undeploy) the RDS redirector and do not disable the RDS servlet, RDS services are still available using the ColdFusion application context root, but tools that use RDS and require a context root of /, such as Dreamweaver and earlier versions of HomeSite, do not work.

1 In the Oracle AS 10g Enterprise Manager, select oc4j_instance /Applications.

2 Select Adobe ColdFusion 8 application and select Edit.

3 In the Administration category, select Advanced Properties.

4 In the Configuration Files category, select orion-application.xml.

5 Comment out the RDS web module as the following example shows:

```
<!--
<web-module id="rds" path="rds.war" />
-->
```

6 Apply the changes.

7 Restart the OC4J instance.

You can enable the RDS web module by repeating this procedure and selecting the Enabled option.

Deploying ColdFusion 8 on JBoss Application Server

ColdFusion 8 supports JBoss with the following specifications:J

- JBoss 4.0.5 (uses Tomcat 5.5 Server Container)
- Sun JRE 1.4.2_09, Sun JRE 1.5, and Sun JRE 1.6
- Host OS - Windows 2003 server SP1 and RH Linux 4 AS

ColdFusion 8 does not support the following:

- ColdFusion deployment on a clustered JBoss environment
- JBoss using a servlet container other than Tomcat
- Operating systems that are not in the previous list

Note: *If you are already using an application with context root of /, you must use a context root other than / for the cfusion-ear file. If you specified / when you installed ColdFusion, you can change it by opening the cfusion-ear/META-INF/application.xml file in a text editor and modifying the context-root element. After you deploy the cfusion-ear file, you access ColdFusion pages by specifying http://*`hostname:portnumber/contextroot/pagename`*.cfm.*

If you are updating an existing deployment of ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7 for J2EE, you must undeploy ColdFusion MX, ColdFusion MX 6.1, or ColdFusion MX 7 for J2EE before you deploy ColdFusion 8, as described in "Updating from an earlier version for J2EE" on page 36.

When you deploy ColdFusion on an existing version of JBoss, you must expand the EAR file or WAR files manually before deployment.

Expand the EAR file

1 Expand the EAR file by performing the following steps:

a Open a console window, navigate to the directory that contains the EAR file, and create a directory named cfusion-ear:

```
md cfusion-ear (mkdir cfusion-ear on UNIX)
```

b Change to the cfusion-ear directory and expand the cfusion.ear file with the `jar` command:

```
cd cfusion-ear
```

```
java_home/bin/jar -xvf ../cfusion.ear
```

This expands the cfusion.ear file into cfusion.war and rds.war (rds.war is not included if you specified a context root of / when you ran the installation wizard).

c In cfusion-ear, create a directory named cfusion-war.

```
md cfusion-war (mkdir cfusion-war on UNIX)
```

d Change to the cfusion-war directory and expand the cfusion.war file with the `jar` command:

```
cd cfusion-war
java_root/bin/jar -xvf ../cfusion.war
```

This expands the cfusion.war file.

e (If rds.war exists) Go up one level to cfusion-ear, create a directory named rds-war.

```
cd ..
md rds-war (mkdir rds-war on UNIX)
```

f (If rds.war exists) Change to the rds-war directory and expand rds.war with the `jar` command:

```
cd rds-war
java_root/bin/jar -xvf ../rds.war
```

This expands rds.war.

g Go up one level to the cfusion-ear file, and delete the cfusion.war and rds.war files:

```
cd ..
del cfusion.war (rm cfusion.war on UNIX)
del rds.war (rm rds.war on UNIX)
```

h Open the cfusion-ear/META-INF/application.xml file in a text editor.

i Change the `web-uri` element from cfusion.war to cfusion-war (or the name of the directory that contains the expanded cfusion.war file). Change the `web-uri` element for rds.war to rds-war. A directory name in the `web-uri` element cannot contain a dot.

j Save the application.xml file.

2 Deploy ColdFusion 8 by copying the cfusion-ear directory structure to the *jrun_root*/servers/*servername* directory. If auto deploy is enabled, JRun 4 either deploys the application immediately (if the JRun server is running), or when you start the JRun server.

3 Review the server log (*jrun_root*/logs/*servername*-event.log) to ensure that ColdFusion 8 deployed successfully.

When sandbox security is enabled in JBOSS. JBOSS startup java environment requires the policy file for it to start, otherwise an AccessControlException error is generated for everything and ColdFusion does not start.

To avoid this issue, edit run.sh and add the following parameters in the JVA_OPTS arguments

```
-Djava.security.manager
-Djava.security.policy="cf_root/WEB-INF/cfusion/lib/coldfusion.policy"
-Djava.security.auth.policy="cf_root/WEB-INF/cfusion/lib/neo_jaas.policy"
```

This document uses the following conventions:

JBOSS_HOME Directory where JBoss is installed, for example, C:\jboss-4.0.5SP1 in Windows or /usr/local/jboss-4.0.5.SP1 on UNIX

JBOSS_DEPLOY_DIR Application deployment directory in JBoss, for example, C:\jboss-4.0.5SP1\server\default\deploy

CF_WEBAPP_ROOT Directory where ColdFusion is deployed, for example: C:\jboss-4.0.5SP1\server\default\deploy\cfusion.ear\cfusion.war

TEMP_LOCATION Temporary location where you extract the cfusion.ear file.

Deploy ColdFusion on JBoss

1 To ensure that ColdFusion can deploy on JBoss 4.0.5, perform the following steps instead of following the standard instructions in the cfmx-j2ee-readme.txt file:

   a Keep periods in the directory names, instead of renaming them with dashes, for example, `\deploy\cfusion.ear\cfusion.war`.

   b Do not make the updates to application.xml.

2 Set JAVA_HOME to the appropriate JRE or JDK.

3 Install ColdFusion by using the J2EE deployment option.

   The installation program creates the cfusion.ear file in the install directory.

4 Extract the cfusion.ear file to a temporary location.

   The extraction operation generates cfusion.war rds.war and the META-INF directory files and puts them in the extracted folder.

5 Extract the cfusion.war file to the TEMP_LOCATION\cfusion.ear\cfusion.war folder.

6 Extract the rds.war file to the TEMP_LOCATION\cfusion.ear\rds.war folder.

7 Copy the META-INF directory to the TEMP_LOCATION\cfusion.ear folder.

8 Stop JBOSS if it is running.

9 Copy the TEMP_LOCATION\cfusion.ear folder and its contents to JBOSS_DEPLOY_DIR.

10 (Windows) Edit the JBOSS_HOME\bin\run.bat file by doing the following:

a If not present, add the JVM GC (`-Xmx512m`) parameter to JAVA_OPTS.

b Ensure that the permanent generation heap size is set by adding `-XX:MaxPermSize=128m to JAVA_OPTS`.

Without this parameter, the JVM can generate a java.lang.OutOfMemoryError error. For more information, see (http://wiki.jboss.org/wiki/Wiki.jsp?page=PermanentGeneration).

c Save the run.bat file.

d Start the server by running the JBOSS_HOME\bin\run.bat file.

11 (Linux) Edit the JBOSS_HOME/bin/run.conf file by doing the following:

a In JAVA_OPTS, change `-Xmx128m.` to `-Xmx512m.`

b Add `-XX:MaxPermSize=128m` to JAVA_OPTS.

c Save the run.conf file.

d Start the server by running the JBOSS_HOME/bin/run.sh file.

To enable features with operating system-specific binaries, configure ColdFusion. This step is required to support the following features that use binaries that are specific to your operating system:

- CFX tags written in C++
- Microsoft Access driver with Unicode support (Windows only)

Use the following procedure for your operating system to configure the search paths to find the required binary files. These files are located in the CF_WEBAPP_ROOT\WEB-INF\cfusion\lib directory.

Configure operating system-specific binary support for Windows

1 Ensure that JBoss Server is stopped.

2 Edit JBOSS_HOME\bin\run.bat by adding the following:

```
set CF_LIB_PATH=CF_WEBAPP_ROOT\WEB-INF\cfusion\lib
set PATH=%PATH%;%CF_LIB_PATH%
```

3 Save the file and start the server.

Note: *You must copy the version of tools.jar that the application server uses to the cfusion/lib directory.*

Configure operating system-specific binary support for Linux

1 Ensure that JBoss Server is stopped.

2 Edit JBOSS_HOME/bin/run.sh by adding the following:

```
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:CF_WEBAPP_ROOT/WEB-INF/cfusion/lib
```

3 Save the file and start the server.

Enable COM support (Windows only)

1 Ensure that JBoss Server is stopped.

2 Edit JBOSS_HOME\bin\run.bat by adding the following:

```
set CF_LIB_PATH=%CF_LIB_PATH%;CF_WEBAPP_ROOT\WEB-
INF\cfusion\jintegra\bin;CF_WEBAPP_ROOT\WEB-INF\cfusion\jintegra\bin\international
```

3 Save the file and start the server.

Enable communication with Flex

When ColdFusion is configured to use RMI for LiveCycle Data Services ES, ColdFusion listens on port 1099 by default. However JBoss typically starts listening on this port before ColdFusion does; as a result, an exception is thrown. To configure ColdFusion to use a different RMI port, on the Java and JVM page of the ColdFusion Administrator, specify the following in the JVM arguments text area:

```
-Dcoldfusion.rmiport=nnnn
```

Replace *nnn* with the value of an unused port. If you try to connect from a LiveCycle Data Services ES server that is running in another JVM server to ColdFusion over RMI, the Flex server must start with the same JVM argument.

Disable RDS

1 Stop ColdFusion.

2 Edit JBOSS_DEPLOY_DIR\cfusion.ear\cfusion.war\WEB-INF\web.xml by commenting out the following:

```
<!-- <servlet id="macromedia_servlet_8789"> <servlet-name>RDSServlet</servlet-name>
<display-name>RDS Servlet</display-name> <servlet-
class>coldfusion.bootstrap.BootstrapServlet</servlet-class> <init-param
id="InitParam_103401311065856789"> <param-name>servlet.class</param-name> <param-
value>coldfusion.rds.RdsFrontEndServlet</param-value> </init-param> </servlet> -->
<!-- <servlet-mapping id="macromedia_mapping_9"> <servlet-name>RDSServlet</servlet-
name> <url-pattern>/CFIDE/main/ide.cfm</url-pattern> </servlet-mapping> -->
```

3 Save the file and start Coldfusion.

Some features, such as EJB3, require JRE 1.5. To use JRE 1.4, ensure that the jboss-aop-deployer pack is not installed as part of the JBoss installation. JBoss installs EJB3 if this pack is selected, which results in JBoss generating errors.

Undeploying ColdFusion

To undeploy ColdFusion in the J2EE configuration, you use application-server specific undeploy tools and methods.

Undeploy ColdFusion in the J2EE configuration

1 Remove all ColdFusion specifications from the `java.args` and `java.library.path` JVM arguments used by your application server.

2 (Windows only) If you installed ODBC support, remove the ODBC Windows services by navigating to the *cf_webapp_root*\WEB_INF\cfusion\db\SequeLink Setup directory and executing the RemoveSequeLink.bat file.

3 If necessary, copy and save CFM pages from the ColdFusion web application root.

4 Undeploy the ColdFusion web application, by using application-server-specific undeploy functionality.

a In JRun 4, you undeploy by deleting the *jrun_root*/server/*servername*/cfusion-ear directory.

b On Oracle 10g, using Enterprise Manager, go to oc4j_instance /Applications, select Adobe ColdFusion 8 application, and then select Undeploy. Return to the Enterprise Manager home page, go to oc4j_instance /Administration/Server Properties, select the PATH variable containing the following, and select Remove:

```
$ORACLE_HOME\j2ee\oc4j_instance\applications\cf_app\cfusion\WEB-INF\cfusion\lib;
$ORACLE_HOME\j2ee\oc4j_instance\applications\cf_app\cfusion\WEB-
INF\cfusion\jintegra\bin;
$ORACLE_HOME\j2ee\oc4j_instance\applications\cf_app\cfusion\WEB-
INF\cfusion\jintegra\bin\international
```

c On WebLogic, open the WebLogic Administrator., open the WebLogic Administration Console (http://hostname:portnumber/console) and go to domainname > Deployments > Applications. Click the trash can to the right of the ColdFusion MX application, and then click Yes. Open the startup script for the WebLogic domain and remove ColdFusion-specific entries, as follows:

```
CF_WEB_INF
CF_SHARED_LIB_DIR (also remove CF_SHARED_LIB_DIR from PRE_PATH)
LD_LIBRARY_PATH (UNIX only, remove ${CF_SHARED_LIBS})
(Windows only) JINTEGRA_PATH (also remove JINTEGRA_PATH from PRE_PATH)
(Windows only) Remove jintegra.jar from PRE_CLASSPATH
CF_SECURITY_JVM_OPTIONS
CF_GRAPHING_JVM_OPTIONS
Remove ColdFusion arguments from MEM_ARGS
Remove CF_SECURITY_JVM_OPTIONS and CF_GRAPHING_JVM_OPTIONS from JAVA_OPTIONS
```

5 If necessary, restart the application server.

Chapter 6: Installing Integrated Technologies

ColdFusion 8 provides integration capabilities with several Adobe and third-party technologies. In some cases, you can install these components when you install ColdFusion 8. In other cases, you might have to follow some steps outside of the ColdFusion installation.

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Integrated Adobe and third-party technologies

ColdFusion 8 provides integration capabilities with several Adobe and third-party technologies.

Installing Dreamweaver extensions

You can update Dreamweaver to include all the new and updated tag and function hints and Help for ColdFusion 8.

Update Dreamweaver tag completion and help to match ColdFusion 8

1 Download the cf8dreamweaverextensions.mxp file from the Adobe website.

2 Double-click the filename.

Install ColdFusion Extensions for Dreamweaver MX 2004

1 Make a backup copy of the configuration/taglibraries/content/codehints folder and its contents.

2 Download the cf8dreamweaverextensions.mxp from the Adobe website.

3 Double-click the cf8dreamweaverextensions.mxp file.

Installing HomeSite+ Extensions

You can update HomeSite+ to include all the new and updated tags and functions in ColdFusion 8.

Update HomeSite+ tag completion and help to match ColdFusion 8

1 Back up the following directories (*homesite-root* refers to the directory that contains HomeSite+):

```
- homesite-root/Extensions/Docs/CFMLFunctions
- homesite-root/Extensions/Docs/CFMLTags
- homesite-root/Extensions/TagDefs/CFML
- homesite-root/Extensions/TagDefs/validator.vtv
- homesite-root/Extensions/Includes/tcCFML.inc
- homesite-root/Extensions/Outline Profiles/CFML Tags.vtm
- homesite-root/Extensions/ExpressionElements.vtm
- homesite-root/Extensions/valuemap.vtv
- homesite-root/Extensions/versions.vtv
- homesite-root/UserData/tagcomp.dat
- homesite-root/UserData/TagList.dat
- homesite-root/Help/booktree.xml
```

2 Extract HomeSiteExtensionsForCF8.zip to your *homesite-root* directory. Overwrite identically named files.

3 Configure the Help tree:

a Open *homesite-root*/Help/cf8booktree.xml in a text editor.

b Select All and copy the selected text.

c Open *homesite-root*/Help/booktree.xml in a text editor.

d Scroll to the bottom of the file and insert a blank line just before the final tag:

```
</help_ref>
```

e Paste the copied text into the blank line.

f Save booktree.xml.

4 Restart HomeSite+.

Installing Report Builder

ColdFusion reporting consists of server-side run-time processing and the ColdFusion Report Builder. The server-side processing is available on any platform, however, the ColdFusion Report Builder runs in Windows only.

Install the ColdFusion Report Builder

1 Access the ColdFusion Report Builder installer from one of the following locations:

- DVD - Use the DVD browser to select the ColdFusion reporting option.
- The Adobe website - Go to www.adobe.com/go/_reportbuilder/.

2 Double-click the CFReportBuilderInstaller.exe file.

3 Follow the instructions in the installation.

Installing Verity Search Server

By default, the installer installs the Verity search server on the same computer as ColdFusion, unless you install ColdFusion on a computer that is running Mac OS X or AIX. To enable searches using Verity, you must install the Verity search server separately if any of the following is true:

- You are running ColdFusion in a J2EE configuration with a WAR or EAR file.
- You plan to install the Verity search server on a different computer from the one where you install ColdFusion.
- You installed ColdFusion on a computer that is running Mac OS X or AIX.

You should start by planning the answers to questions asked by the Installer:

1 "Where would you like to install?" _____

Adobe recommends that you specify a location that is not a subdirectory of the application server directories.

2 The IP address of the ColdFusion Server from which this machine will accept requests _____

The IP address is necessary only if you are installing Verity search server on a different computer from the one where you installed ColdFusion. If you do not specify an IP address, the Installer uses the default 127.0.0.1, which is localhost.

Install the Verity search server separately

1 Download your platform-specific installer from the Adobe website at www.adobe.com/go/verity or copy it from the ColdFusion 8 DVD, as follows:

- Windows - coldfusion-search.win.exe
- Linux - coldfusion-search-lin.bin
- Solaris - coldfusion-search-sol.bin

2 Close any applications that are currently running on your computer.

3 Run the platform-specific installer using the appropriate command.

Note: *Only console installations are available for UNIX systems.*

4 (UNIX only) If you chose not to start the Verity search server automatically, start, stop, and restart Verity by running *verity_root*/bin/cfsearch -start | -stop | -restart.

Installing Verity on Linux

If you are installing Verity on a computer that is running Linux, that computer must have the appropriate libstdc++ compat package, as follows:

Red Hat Enterprise Linux 3 - compat-libstdc++-7.3-2.96.122

Red Hat Enterprise Linux4 - compat-libstdc++-33-3.2.3-47.3

SUSE 10 - compat-libstdc++-5.0.7-22.2

Enabling Flash Remoting

To interact with ColdFusion pages and components from an Adobe Flash SWF file, you can use the Flash Remoting service in ColdFusion 8. To develop applications that use Flash Remoting, you must install the Flash Remoting components in the Flash authoring environment. The Flash authoring environment or Adobe Flex is required to build applications that connect to and interact with the Flash Remoting service in ColdFusion 8.

By default, Adobe Flash Remoting cannot access web services through ColdFusion 8.

Enable Flash Remoting to access web services through ColdFusion 8

1. Open the *cf_root*/WEB-INF/gateway-config.xml file in a text editor.
2. Locate the following line.

```
<!--<adapter>coldfusion.flash.adapter.CFWSAdapter</adapter>-->
```

3. Remove the comments so that the line appears as follows.

```
<adapter>coldfusion.flash.adapter.CFWSAdapter</adapter>
```

4. Save the file.
5. Restart ColdFusion.

For more information on Flash Remoting, see the *ColdFusion Developer's Guide*.

Installing Flash Remoting Update

Flash Remoting Update lets you create rich Internet applications by using Adobe® Flex™ Builder™, with the advanced data retrieval features of ColdFusion, such as the `cfpop`, `cfldap`, and `cfquery` tags. Also, you can use Flash Remoting Update to create Flash Forms and Flash applications that contain features, such as server callbacks and customized user interface.

Install Flash Remoting Update

1. Install ColdFusion 8.
2. If your ColdFusion server uses something other than port 8500, do the following:
   a. Open the file <*cf_root*>\wwwroot\Web-INF\flex\services-config.xml.
   b. Change the following to specify the port that you are using in the endpoint URL:

```
<endpoint uri="http://localhost:8500/flex2gateway/" in flex-services.xml
```

   c. Save the file.
   d. Restart the ColdFusion server.

Installing Adobe LiveCycle Data Services ES

You can install LiveCycle Data Services ES as part of the ColdFusion 8 installation. However, you could install LiveCycle Data Services ES on a different computer. For more information about using LiveCycle Data Services ES with ColdFusion, see *ColdFusion Developer's Guide*.

Installing the ColdFusion .NET Integration Services

You install Adobe ColdFusion 8 .NET Integration Service to access .NET assemblies from ColdFusion. The .NET assemblies can exist either locally on the computer on which Coldfusion is running or on a remote machine. If the computer on which you are installing ColdFusion does not have Microsoft .NET framework installed, the .NET Integration Services option is disabled in the ColdFusion installer.

Installing ColdFusion .NET Integration Services with ColdFusion

If .NET assemblies exist locally, select the .NET Integration Services option when you install ColdFusion. Doing so installs the Adobe Coldfusion 8 .NET Integration Services with ColdFusion. You can access .NET assemblies locally only if you are running ColdFusion on a Windows computer; on other operating systems, the .NET assemblies must be on a remote Windows computer.

The ColdFusion installer puts the .NET Integration software in the cf_root\jnbridge directory. If you install the ColdFusion multiserver configuration or the J2EE configuration, you can specify the directory in which to install the .NET Integration software.

The installer automatically determines your Windows system .NET Framework version (1.x or 2.0) and installs the appropriate .NET integration software. If you upgrade your .NET Framework, you must reinstall Adobe Coldfusion 8 .NET Integration Servies. Proxies that you generate for .NET Framework 1.x work with .NET Framework 2.0 and .NET Framework 3.0, but proxies generated for .NET Framework 2.0 do not work with 1.x frameworks.

Installing ColdFusion .NET Service separately

If the .NET assemblies are on a remote computer, you use the .NET Service Installer to install Adobe Coldfusion 8 .NET Service. Similarly, to install the ColdFusion .NET Service when Coldfusion is already installed, you use the Adobe ColdFusion 8 .NET Service installer.

Installing using the ColdFusion 8 .NET Service installer

1. Open the installer.
2. Select the directory in which to install the .NET Service files.
3. Do one of the following:
   a. To install the .NET Service on the computer that is running ColdFusion, select the Install .NET Service With ColdFusion option and specify the ColdFusion root directory.
   b. To install the .NET Service remotely, select the Install .NET Service As Standalone option.
4. Review the Summary and click Install.
5. Restart ColdFusion.

Uninstall the ColdFusion 8 .NET Service

1. Select Start > Settings > Control Panel > Add or Remove Programs.
2. Select Adobe ColdFusion .NET Service.
3. Click Uninstall.

Alternatively, you can uninstall the Adobe Coldfusion 8 .NET Service by running the Uninstall Adobe ColdFusion 8 .NET Integration Services.exe program. The program is located in the *cf_root*\jnbridge\uninstall directory on ColdFusion server configurations. On multiserver and J2EE configurations and on computers where you installed the Integration software without ColdFusion, it is in the C:\ColdFusionDotNetService\uninstall directory by default.

Installing ColdFusion Extensions for Eclipse

The ColdFusion Extensions for Eclipse include wizards that help generate code for common tasks and an extension that lets you connect to remote servers from Flex Builder and Eclipse. If you previously installed ColdFusion Extensions for Eclipse, you should uninstall them before installing a later version.

Install the ColdFusion Extensions for Eclipse

1. In Eclipse, in the Update Sites to Visit dialog box, uncheck the Ignore Features Not Applicable To This Environment option.
2. Download the ColdFusion Extensions for Eclipse from the Adobe website.
3. Select Help > Software Updates > Find and Install.

4 Select the Search For New Features To Install option, and then click Next.

5 Click New Archive Site.

6 Navigate to the location where you downloaded the ColdFusion_FlexBuilder_Feature.zip file, select the file, and then click Open.

7 When the Edit Local Site dialog box appears, click OK.

8 Ensure that the ColdFusion Flex Builder feature is selected, and then click Finish.

9 Select the check box next to ColdFusion_FlexBuilder_Feature.zip, and then click Next.

10 Select the I Accept The Terms In This License Agreement option, and then click Next.

11 Click Finish.

12 Click Install All.

13 When the installation is complete, click Yes to restart Flex Builder or Eclipse.

To uninstall the ColdFusion Extensions for Eclipse, you must first disable them, and then uninstall them.

Uninstall the ColdFusion Extensions for Eclipse

1 Select Help > Software Updates > Manage Configuration.

2 Select the ColdFusion Plugin feature.

3 Click Disable, and then click OK.

4 Click Yes to restart Flex Builder or Eclipse.

5 When Eclipse or Flex Builder restarts, select Help > Software Updates > Manage Configuration.

6 Ensure that the Show Disable Features button is selected, select the ColdFusion Flex Builder feature, and then click Uninstall.

7 Click Yes to confirm that you want to uninstall.

8 Click Yes and restart Flex Builder or Eclipse.

Chapter 7: Configuring Your System

You can manage ColdFusion services and processes, configure web servers manually, and change user accounts and configure databases for ColdFusion.

Note: *The term* cf_root *refers to your installation directory in the server configuration. By default, this directory is C:\ColdFusion8 in Windows, and /opt/coldfusion8 in UNIX.* Jrun_root *refers your installation directory in the multiserver configuration. By default, this directory is C:\JRun4 in Windows and /opt/jrun4 in UNIX.*

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Overview of configuration tasks

The following table describes when to do the configuration tasks that are documented in this topic:

Configuration task	When to do it
"Managing ColdFusion services in Windows" on page 76 and "Managing the ColdFusion process in UNIX" on page 77	For your changes to take effect when you stop and restart ColdFusion, for example after you enable or disable security in the ColdFusion Administrator or change any of the Java and JVM settings. You can do this at any time after you install ColdFusion.
"Configuring web servers" on page 79	When moving to a production server or when the built-in web server no longer meets your needs.
"Enabling CORBA support" on page 88	If you must make CORBA invocations from ColdFusion. You can do this after you install ColdFusion and before you make a CORBA call from ColdFusion.

Configuration task	When to do it
"Disabling Remote Development Services" on page 91	For security reasons, disable RDS when you move an application to the production environment.
"Disabling JSP functionality (server configuration only)" on page 92	When running ColdFusion Enterprise Edition in a hosted environment, you might want to disable JSP processing.
"Changing the ColdFusion user account in Windows" on page 93	Iif you discover that the account under which ColdFusion is running has inappropriate access rights; for example, to interact with remote data sources, other application pages, or COM objects. You must also do this to be able to print to a printer using the `cfprint` tag. You can do this after you install ColdFusion and before you deploy your application.

For information about additional configuration tasks, see *Configuring and Administering ColdFusion*.

Managing ColdFusion services in Windows

The ColdFusion installation creates the following services in the configuration indicated:

Service	Purpose	Configuration
ColdFusion 8 Application Server	The main ColdFusion service. ColdFusion pages cannot be processed if this service is not running.	Server
Macromedia JRun Admin Server	Runs the admin JRun server, used by the JRun Management Console (JMC).	Multiserver
Macromedia JRun CFusion Server	Runs the JRun cfusion server. Contains ColdFusion 8 deployed as an enterprise application.	Multiserver
ColdFusion 8 ODBC Agent	The service used to configure data sources for the ColdFusion 8 ODBC Server.	All
ColdFusion 8 ODBC Server	The middle-tier service for ODBC connections that use the DataDirect drivers for Microsoft Access and ODBC Socket.	All
ColdFusion 8 Search Service	Provides support for the ColdFusion 8 search tags.. You cannot use the ColdFusion 8 search tags if this process is not running.	All
ColdFusion 8 .NET Service	Lets you access local .NET assemblies on a Windows system that runs ColdFusion.	All

Note: *In the ColdFusion Administrator, if you enable or disable security or change any option in the Java and JVM Settings page, you must stop and restart ColdFusion 8 for your changes to take effect. This applies to the server configuration only; in the multiserver and J2EE configurations, you use application-server-specific methods to update Java settings.*

Start or stop a ColdFusion service

1 Open the Services dialog box by selecting Start > Settings > Control Panel > Administrative Tools > Services.

If a service is running, its status appears as Started in the Status column. If it is not running, no status appears for the service.

2 Right-click a service, and select Stop, Start, or Restart.

The Services window refreshes.

Set ColdFusion 8 to start automatically or manually

1 Open the Control Panel > Services dialog box.

2 Right-click the service to configure, and select Properties.

3 In the Properties dialog box, on the General tab, select one of the following options in the Startup Type frame or pop-up menu, and click OK:

- Automatic - Starts the service automatically when you start the computer.
- Manual - Requires a user or dependent service to manually start the service.

Managing the ColdFusion process in UNIX

The ColdFusion installation creates a single process in UNIX called `coldfusion8`. To check whether it is running, use the following command:

```
ps -eaf | grep coldfusion8
```

If it is running, your computer returns something similar to the following line:

```
nobody 4528 1 10 12:44 pts/0 00:00:07 /opt/coldfusion8/bin/coldfusion8 -jar jrun.jar -
start coldfusion
```

Note: *This discussion applies to the ColdFusion 8 server configuration only. With the multiserver or J2EE configuration, you start and stop ColdFusion 8 by starting the application server.*

The ColdFusion process starts automatically when you start your computer and shuts down automatically when you shut down your computer, if you specified that it should do so in the installation.

In the ColdFusion Administrator, if you enable or disable security or change any option in the Java and JVM Settings page, you must stop and restart the ColdFusion process for your changes to take effect. This applies to the server configuration only; in the multiserver and J2EE configurations, you use application-server-specific methods to update Java settings.

Manage the ColdFusion process in UNIX

1. Log in as root, if you have not already done so.
2. Enter the following command:

```
cd cf_root/bin
```

3. Enter the appropriate command, as the following table describes:

Task	Command
Start ColdFusion 8	`coldfusion start`
Stop ColdFusion 8	`coldfusion stop`
Restart ColdFusion 8	`coldfusion restart`
View performance information for ColdFusion 8	`coldfusion status`
Run Web Server Configuration Tool	`coldfusion wsconfig`

Managing the ColdFusion process in Mac OS X

The ColdFusion installation creates a single process in UNIX called `cfusion`. To check whether it is running, use the following command:

```
ps -eaf | grep coldfusion8
```

If it is running, your computer returns something similar to the following line:

```
nobody 4528 1 10 12:44 pts/0 00:00:07 /opt/coldfusion8/bin/coldfusion8 -jar jrun.jar -
start coldfusion
```

Note: *This discussion applies to the ColdFusion 8 server configuration only. With the multiserver or J2EE configuration, you start and stop ColdFusion 8 by starting the application server.*

The ColdFusion process starts automatically when you start your computer and shuts down automatically when you shut down your computer, if you specified that it should do so in the installation.

In the ColdFusion Administrator, if you enable or disable security or change any option in the Java and JVM Settings page, you must stop and restart the ColdFusion process for your changes to take effect. This applies to the server configuration only; in the multiserver and J2EE configurations, you use application-server-specific methods to update Java settings.

Manage the ColdFusion process in UNIX

1. Log in as root, if you have not already done so.
2. Enter the following command:

```
cd cf_root/bin
```

3. Enter the appropriate command, as the following table describes:

Task	Command
Start ColdFusion 8	`coldfusion start`
Stop ColdFusion 8	`coldfusion stop`
Restart ColdFusion 8	`coldfusion restart`
View performance information for ColdFusion 8	`coldfusion status`
Run Web Server Configuration Tool	`coldfusion wsconfig`

Configuring web servers

You configure a web server to serve ColdFusion pages, for Windows and UNIX if you did not configure a web server automatically during installation, if you want to change your web server, or to configure a web server for a cluster.

You configure an external web server connection by using the Web Server Configuration Tool, which you can run through a graphical user interface (GUI) or the command line. The Windows discussions describe GUI mode, and the UNIX instructions describe command-line mode; however, you can use GUI mode in UNIX if you have access to a graphical environment.

ColdFusion 8 provides batch files and shell scripts in the cf_root*/bin/connectors directory to help you get started with command-line usage.*

For more information on the Web Server Configuration Tool, including information on multihoming and distributed usage, see *Configuring and Administering ColdFusion*.

Note: *If you cannot verify your configuration, repeat the procedure. If the problem persists, contact Adobe Technical Support for assistance, or manually create the element that you cannot verify in the configuration (for example, manually add an entry to the Apache httpd.conf file, as described in this section).*

- Configuring web servers in Windows
- Configuring web servers in UNIX

Configuring web servers in Windows

You configure web servers in Windows by doing the following:

- Configuring IIS in Windows
- Configuring SunONE Web Server or iPlanet web server in Windows
- Configuring Apache web server in Windows

Configuring IIS in Windows

You configure IIS using the Web Server Configuration Tool in GUI or command-line mode. This discussion describes how to use GUI mode.

(Server configuration only) To use the command line, open the batch files located in cf_root*bin\connectors*.

For more information, see the Web Server Management chapter in *Configuring and Administering ColdFusion*.

Configure IIS for ColdFusion in Windows

1 Start the Web Server Configuration Tool by selecting Start > Programs > Adobe > ColdFusion 8 > Web Server Configuration Tool.

2 Click Add.

3 In the Server pop-up menu, select the host name and the server or cluster name to configure. In the ColdFusion server configuration, the server name is always coldfusion. Clustering support is not available on the server configuration.

Note: *The server or cluster does not have to reside on the web server computer.*

4 In the Web Server Properties area, select IIS and specify the website. For IIS, you typically specify All.

5 Select the Configure web server for ColdFusion applications option, and click OK.

Note: *Omitting the previous step causes your web server to serve ColdFusion source code.*

6 Copy the CFIDE and cfdocs directories from *cf_root*/wwwroot to your web server root directory. In addition, copy your application's CFM pages from *cf_root*/wwwroot to your web server root directory. In the multiserver configuration, these files are under the *jrun_root*/servers/cfusion/cfusion-ear/cfusion-war directory.

Verify your IIS configuration

1 Verify that the following file was created: *cf_root*/runtime/lib/wsconfig/jrun.dll (server configuration) or *jrun_root*/lib/wsconfig/jrun.dll (multiserver configuration). On IIS6, this file is named jrun_iis6.dll.

2 For each of your IIS websites, verify that application mappings for .cfm, .cfml, .cfc, .cfswf, .cfr, .jsp, and .jws were added, as follows:

a In IIS, right-click an IIS website and select Properties.

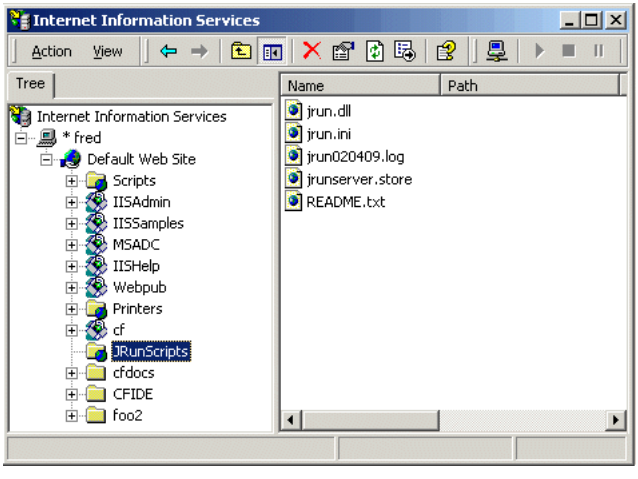
b In the Properties dialog box, on the Home Directory tab, click Configuration.

c In the Application Configuration dialog box, click the App Mappings tab.

Mappings for .cfm, .cfml, .cfc, .cfswf, .cfr, .jsp, and .jws are displayed in the Extension column.

3 Verify that each of your IIS websites has a virtual directory called JRunScripts.

The following image shows a sample JRunScripts virtual directory:



4 Verify that the JRunScripts directory in each of your IIS websites points to the correct location, as follows:

a Right-click the JRunScripts directory and select Properties.

b In the Properties dialog box, on the Virtual Directories tab, verify that the Local Path text box contains the following path:

path/wsconfig/*number* (typically 1)

Configuring SunONE Web Server or iPlanet web server in Windows

You configure SunONE Web Server 6 or iPlanet web server 6.x for ColdFusion in Windows, and verify your configuration, by using the Web Server Configuration Tool in GUI or command-line mode. This discussion describes how to use GUI mode.

(Server configuration only) To use the command line, open the batch files located in cf_root*/bin/connectors.*

For more information, see the Web Server Management topic in *Configuring and Administering ColdFusion*.

Configure SunONE or iPlanet for ColdFusion in Windows:

1 Start the Web Server Configuration Tool by selecting Start > Programs > Adobe > ColdFusion 8 > Web Server Configuration Tool.

2 Click Add.

3 In the Server pop-up menu, select the host name and the server or cluster name to configure. For the ColdFusion server configuration, this is always coldfusion. Clustering support is not available on the server configuration.

Note: *The server or cluster does not have to reside on the web server computer.*

4 In the Web Server Properties area, select SunONE Web Server (iPlanet) or Netscape Enterprise Server (NES), and specify the path to the directory that contains the obj.conf file.

5 Select the Configure web server for ColdFusion applications option, and click OK.

Note: *Omitting the previous step causes your web server to serve ColdFusion source code.*

6 Copy the CFIDE and cfdocs directories from *cf_root*/wwwroot to your web server root directory. In addition, copy your application's CFM pages from *cf_root*/wwwroot to your web server root directory. In the multiserver configuration, these files are under the *jrun_root*/servers/cfusion/cfusion-ear/cfusion-war directory.

Verify your Sun ONE or iPlanet configuration

1 Verify that the following file was created: *cf_root*/runtime/lib/wsconfig/*number*/libjrun_nsapi.so

2 Open SunOne configuration file, obj.conf in the webserver directory (for example in C:\sunone\servers\https-yourserver\config\obj.conf).

3 Verify that the following was added to the file:

```
PathCheck fn=find-index {check index.cfm is added}
PathCheck fn="jrunfilter"
ObjectType fn=type-by-exp exp={*.cfm, *.cfc, *.cfswf, *.jsp, *.jws, *.cfr} type="jrun-
internal/ext"
Service method=(GET|HEAD|POST) type="jrun-internal/*" fn="jrunservice"
```

Configuring Apache web server in Windows

You configure Apache by using the Web Server Configuration Tool in GUI or command-line mode. This discussion describes how to use GUI mode.

(Server configuration only) To use the command line, open the batch files located in cf_root*bin\connectors*.

For more information, see the Web Server Management topic in *Configuring and Administering ColdFusion*.

Configure Apache for ColdFusion in Windows

1 Start the Web Server Configuration Tool by selecting Start > Programs > Adobe > ColdFusion 8 > Web Server Configuration Tool.

2 Click Add.

3 In the Server pop-up menu, select the host name and the server or cluster name to configure. For the ColdFusion server configuration, this is always coldfusion. Clustering support is not available on the server configuration.

Note: *The server or cluster does not have to reside on the web server computer.*

4 In the Web Server Properties area, select Apache and specify the path to the directory that contains the httpd.conf file.

5 Select the Configure web server for ColdFusion applications option, and click OK.

Note: *Omitting the previous step causes your web server to serve ColdFusion source code.*

6 Copy the CFIDE and cfdocs directories from *cf_root*/wwwroot to your web server root directory. Also, copy your application's CFM pages from *cf_root*/wwwroot to your web server root directory. In the multiserver configuration, these files are under the *jrun_root*/servers/cfusion/cfusion-ear/cfusion-war directory.

Verify your Apache configuration

1 Verify that one of the following files was created:

- *cf_root*\runtime\lib\wsconfig*number*\mod_jrun.so (Apache 1.3.2.7)
- *cf_root*\runtime\lib\wsconfig*number*\mod_jrun20.so (Apache 2.x)

In the multiserver configuration, this file is located under *jrun_root*/lib/wsconfig.

2 Open the Apache configuration file, httpd.conf, in your Apache conf directory. In Windows, the default is C:\Program Files\Apache Group\Apache\conf\httpd.conf.

3 Verify that the following code is appended to this file (except that if you are using Apache 2.2, the file name is mod_jrun22.so):

```
# JRun Settings
LoadModule jrun_module "c:/ColdFusion8/runtime/lib/wsconfig/1/mod_jrun.so"
<IfModule mod_jrun.c>
  JRunConfig Verbose false
  JRunConfig Apialloc false
  JRunConfig Ssl false
  JRunConfig IgnoreSuffixmap false
  JRunConfig Serverstore "c:/ColdFusion8/runtime/lib/wsconfig/1/jrunserver.store"
  JRunConfig Bootstrap 127.0.0.1:51000
  #JRunConfig Errorurl <optionally redirect to this URL on errors>
  JRunConfig jrun-handler .jsp .jws .cfm .cfml .cfc .cfswf .cfr
</IfModule>
```

Configuring web servers in UNIX

You configure web servers in UNIX by doing one of the following:

- Configuring Apache web server in UNIX
- Configuring SunONE or iPlanet web server in UNIX

Configuring Apache web server in UNIX

You can configure and verify the Apache web server for ColdFusion in UNIX.

Note: *When running the Web Server Configuration Tool on the multiserver configuration, wsconfig.jar is located in* jrun_root*/lib. On the server configuration only, you can also use the scripts in* cf_root*/bin/connectors, modifying them, as appropriate for your environment.*

Configure the Apache web server for ColdFusion in UNIX

1 Enter the following command on a single line:

```
wsconfig -server servername -ws Apache -dir <apache config directory> -coldfusion -v
```

Note: *You must enter the previous command as a single (long) line.*

The wsconfig file is in *cf_root*/runtime/bin (server configuration) or *jrun_root*/bin (multiserver configuration)

The following is a sample command:

```
/opt/coldfusion8/runtime/bin/wsconfig -server coldfusion -ws Apache -dir
/etc/httpd/conf-coldfusion -v
```

Note: *For unique configurations (such as the preconfigured Apache web servers from Redhat or Sun), add the -bin and -script parameters, as described in Configuring and Administering ColdFusion.*

2 Copy the CFIDE and cfdocs directories from *cf_root*/wwwroot to your web server root directory. In addition, copy your application's pages from *cf_root*/wwwroot to your web server root directory. In the multiserver configuration, these files are under the *jrun_root*/servers/cfusion/cfusion-ear/cfusion-war directory.

Verify your Apache configuration

1 Verify that one of the following files was created:

- *cf_root*/runtime/lib/wsconfig/*number*/mod_jrun.so (Apache 1.3.x)
- *cf_root*/runtime/lib/wsconfig/*number*/mod_jrun20.so (Apache 2.x)

In the multiserver configuration, this file is located under *jrun_root*/lib/wsconfig.

2 Open the Apache configuration file, httpd.conf, in your Apache conf directory. By default it is /etc/httpd/conf/httpd.conf.

Verify that the following code is added to this file:

```
# JRun Settings
LoadModule jrun_module "/opt/ColdFusion8/runtime/lib/wsconfig/1/mod_jrun.so"
<IfModule mod_jrun.c>
  JRunConfig Verbose false
  JRunConfig Apialloc false
  JRunConfig Ssl false
  JRunConfig Serverstore "/opt/ColdFusion8/runtime/lib/wsconfig/1/jrunserver.store"
  JRunConfig Bootstrap 127.0.0.1:51000
  #JRunConfig Errorurl <URL for errors>
  JRunConfig jrun-handler .jsp .jws .cfm .cfml .cfc
</IfModule>
```

Configuring SunONE or iPlanet web server in UNIX

You can configure and verify SunONE Web Server or iPlanet web server (4.x or 6.x) for ColdFusion in UNIX.

Note: *When running the Web Server Configuration Tool on the multiserver configuration, wsconfig.jar is located in* jrun_root*/lib. On the server configuration only, you can also use the scripts in* cf_root*/bin/connectors, modifying them, as appropriate for your environment.*

Configure Netscape or iPlanet for ColdFusion in UNIX

1 Enter the following command on a single line:

```
wsconfig -server servername -ws sunone | iplanet | nes -dir path_to_config-coldfusion -v
```

Note: *You must enter the previous command as a single (long) line. Specify* `sunone`*,* `iplanet` *or* `nes`*.*

The following is a sample command:

```
/opt/coldfusion8/runtime/bin/wsconfig -server coldfusion -ws sunone -dir
path_to_config -coldfusion -v
```

2 Copy the CFIDE and cfdocs directories from *cf_root*/wwwroot to your web server root directory. Also, copy your application's CFM pages from *cf_root*/wwwroot to your web server root directory. In the multiserver configuration, these files are under the *jrun_root*/servers/cfusion/cfusion-ear/cfusion-war directory.

Verify your Netscape or iPlanet configuration

1 Verify that the following file was created:

cf_root/runtime/lib/wsconfig/1/jrun_nsapi35.dll

In the multiserver configuration, this file is located under *jrun_root*/lib/wsconfig.

2 Open the Netscape configuration file, obj.conf, in the web server directory (for example, in /usr/netscape/server4/https-surf/config/obj.conf).

3 Verify that the following line is in the file:

```
NameTrans fn="jrunfilter"
```

4 Verify that #JRun prefixes the following `NameTrans` line in the file:

```
#JRun NameTrans fn="pfx2dir" from="/servlet" dir="e:/netscape/servers/docs/servlet"
```

5 Verify that the following object element is at the end of the file:

```
<Object name="jrun">
PathCheck fn="jrunfilter"
Service fn="jrunservice"
</Object>
```

Configure Sun Web Server 7 on Solaris

1 Launch the *cfroot*/runtime/bin launch wsconfig tool.

2 Click Add, and then select Sun Web Server 7.

3 Select conf dir from the Sun Web Server root (created instance).

4 Select the Configure Web Server For ColdFusion Applications option and click Add.

5 Edit both the magnus.conf file and the obj.conf file (located in the *sun_install_dir*/*server_instance*/conf directory) by commenting lines that contain j2ee.

6 Go to the *sun_install_dir*/bin directory.

7 Execute the following command:

```
./wadm pull-config --user=admin --port=(admin_port) --config=(server_instance)
admin_instance
```

Unconfigure Sun Web Server 7 on Solaris

1 Launch the *cfroot*/runtime/bin launch wsconfig tool.

2 Select Sun ONE Web Server, and then click Remove.

3 Edit both the magnus.conf file and the obj.conf file (located in the *sun_install_dir*/*server_instance*/conf directory) by uncommenting lines that contain j2ee.

4 Go to the *sun_install_dir*/bin directory.

5 Execute the following command:

```
./wadm pull-config --user=admin --port=(admin_port) --config=(server_instance)
admin_instance
```

Installing Verity Locales

ColdFusion lets you do Verity searches for languages other than English. For more information on Verity, see *Configuring and Administering ColdFusion*.

This section describes how to install a Verity Locales package from the ColdFusion DVD or Adobe website, and how to switch to a different Verity Locales package.

Install Verity Locales

1 Do one of the following:

a Copy the appropriate Verity Locales package from the ColdFusion DVD to the [verity]/k2/common directory.

b In your browser, go to the following location on the Adobe website: www.adobe.com/go/verity, enter your ColdFusion license key, download the appropriate Verity Locales package, and then save it to the [verity]/k2/common directory. For example, if Verity is installed with the server configuration, the location is *cf_root*/verity/k2/common; if Verity is installed separately and you use the default, the location is C:\coldfusionverity\k2\common.

- verity_asian_locales.zip - includes Japanese, Korean, Chinese (Simplified), and Chinese (Traditional)
- verity_ee_me_locales.zip - includes Arabic, Bulgarian, Czech, Greek, Hebrew, Hungarian, Polish, Russian, and Turkish
- verity_weuropean_locales.zip - includes Danish, Dutch, Finnish, French, German, Italian, Norwegian (Bokmal), Norwegian (Nynorsk), Portuguese, Spanish, and Swedish
- verity_multilanguage_locale.zip

2 Extract the ZIP file in your *cf_root* directory.

During extraction, the search files are automatically placed in the appropriate directories.

3 To add another Verity Locales package, repeat this procedure for the new Verity Locales package.

Enabling CORBA support

ColdFusion supports third-party Object Request Brokers (ORBs) through its integration with Borland Visibroker. However, you must acquire the Common Object Request Broker Architecture (CORBA) software separately from Borland.

System requirements

You must have all of the following components installed on your computer before you can make CORBA invocations from ColdFusion:

- Borland Visibroker 4.5.1 for Java
- Java Runtime Environment (JRE) 1.2 for the Visibroker Interface Repository
- JRE 1.4 or later for ColdFusion 8

Installing Visibroker for CORBA connections

Install Visibroker for CORBA connections

1 Install Visibroker on the CORBA server side.

For more information, see the Borland Visibroker documentation.

2 Add the vbjorb.jar file to the ColdFusion classpath, as follows:

a In the ColdFusion Administrator, select Server Settings > Java and JVM. When using the J2EE configuration, you add the vbjorb.jar file to the J2EE application server classpath, using the server-specific method.

b On the Java and JVM Settings page, in the Class Path text box, enter the path to your vbjorb.jar file (for example, C:\Inprise\vbroker\lib\vbjorb.jar). You must add `-Xbootclasspath/a:"C:/Inprise/vbroker/lib/vbjorb.jar"`, to the JVM Args text box.

You require only the JAR file on the computer that is running ColdFusion; you do not need the full Visibroker installation.

c Click Submit Changes.

3 Configure a Visibroker connector in ColdFusion, as follows:

a In the ColdFusion Administrator, select Extensions > CORBA Connectors.

b In the CORBA Connectors page, click Register CORBA Connector.

c In the CORBA Connector page, enter information for the connector.

The following is an example of a correctly configured connector:

Field	Value
ORB Name	visibroker
ORB Class Name	coldfusion.runtime.corba.VisibrokerConnector
Classpath	(none)
ORB Property File	C:\ColdFusion8\lib\vbjorb.properties

The ORB Property File points to a Java properties file that contains the correct ORB settings for Visibroker.

The contents of the vbjorb.properties file look like the following:

```
org.omg.CORBA.ORBClass=com.inprise.vbroker.orb.ORB
```

```
org.omg.CORBA.ORBSingletonClass=com.inprise.vbroker.orb.ORB
SVCnameroot=namingroot
```

d When you finish editing the page, click Submit.

The CORBA Connectors page appears.

e Select the radio button to the left of your new CORBA connector and click Select ORB Connector.

This sets the new connector to be the default.

4 Prepare your CORBA server side, as follows:

a Start your Visibroker osagent service or process, if it is not already running, by entering the following command:

```
osagent
```

Note: *If you must connect to an osagent in another subnetwork, include the following lines in the vbjorb.properties file:*

```
vbroker.agent.addr=<IP address of machine running OSAGENT>
vbroker.agent.port=<port>
```

b Start the Interface Repository and load it with the IDL file that you plan to use, by entering an `irep` command, as in the following example:

```
irep myir MyIDLFile.idl
```

c (Optional) Start the Naming Service by entering a command like the following:

```
nameserv namingroot
```

Note: *The name of the Naming Service (*namingroot *in the previous example) must match the value for SVCnameroot in the vbjorb.properties file.*

d Start Visibroker on your CORBA server.

For more information, see the Borland Visibroker documentation.

5 Restart ColdFusion for your changes to take effect.

For more information, see "Managing ColdFusion services in Windows" on page 76 and "Managing the ColdFusion process in UNIX" on page 77.

You can now make CORBA invocations from ColdFusion. For more information about integrating CORBA objects into ColdFusion, see the *ColdFusion Developer's Guide*.

Disabling Remote Development Services

If you use Adobe Dreamweaver, Macromedia HomeSite, Adobe Flex Builder, or Eclipse to develop your applications, you can access a remote ColdFusion server using HTTP. However, you must configure Remote Development Services (RDS) in your integrated development environment (IDE), and RDS must be enabled in ColdFusion. Using RDS, IDE users can securely access remote files and data sources, build SQL queries from these data sources, and debug CFML code.

Note: *The ColdFusion Report Builder uses RDS for the Query Builder and for charting support.*

However, for security reasons, Adobe recommends that you disable RDS on a production server. To disable it, you must disable the RDSServlet mapping.

Disable the RDSServlet mapping

1. Back up the web.xml file.

   This file is in the *cf_root*\wwwroot\WEB-INF directory in Windows and in the *cf_root*/wwwroot/WEB-INF directory in UNIX. In the multiserver and J2EE configurations, this file is under *cf_webapp_root*/WEB-INF.

2. Open the original web.xml file for editing.
3. Comment out the RDSServlet mapping, as the following example shows:

```
<!--
<servlet-mapping id="coldfusion_mapping_9">
<servlet-name>RDSServlet</servlet-name>
<url-pattern>/CFIDE/main/ide.cfm</url-pattern>
</servlet-mapping>
-->
```

4. Save the file.
5. Restart ColdFusion.

   RDS is disabled on the ColdFusion server.

For more information, see “Managing ColdFusion services in Windows” on page 76, or “Managing the ColdFusion process in UNIX” on page 77.

Disabling JSP functionality (server configuration only)

ColdFusion Enterprise Edition provides support for JavaServer Pages (JSP) technology through the underlying J2EE application server on which it runs. Because JSP code runs outside of the realm of the ColdFusion security framework and, therefore, is not subject to ColdFusion sandbox security, you do not typically deploy JSPs in a shared, hosted environment where more than one customer shares a single server.

Disable JSP functionality

1. Open *cf_root*/runtime/servers/default/SERVER-INF/default-web.xml in a text editor.
2. Find the `servlet-mapping` entry for JspLicenseServlet.
3. Comment out this entry, as the following example shows:

```
<!--
<servlet-mapping>
 <servlet-name>JspLicenseServlet</servlet-name>
 <url-pattern>*.jsp</url-pattern>
 </servlet-mapping>
-->
```

4. Save and close the file.
5. Open the file *cf_root*\WEB-INF\web.xml.
6. Comment out the servlet mapping, as follows:

```
<!--
<servlet-mapping>
<servlet-name>JspLicenseServlet</servlet-name>
<url-pattern>*.jsp</url-pattern>
</servlet-mapping>
-->
```

7. Save and close the file.
8. Restart ColdFusion.

Changing the ColdFusion user account in Windows

The ColdFusion services, by default, run under the highly privileged system accounts. For an extra level of security, Adobe recommends that you create a Windows user under which you run the services and only give privileges needed to run the web application (for example, folder permissions for the web root.)

Change the ColdFusion user account

1 Open the Services Control Panel. (For example, select Start > Settings > Control Panel > Administrative Tools > Services.)

2 Right-click ColdFusion 8 Application Server, and select Properties.

The ColdFusion 8 Application Server Properties (Local Computer) dialog box appears.

3 On the Log On tab, select This account, and enter the account information.

4 Click OK.

5 In the Services control panel, right-click ColdFusion 8 Application Server, and select Restart.

Note: *Do not rename your Windows Administrator account. This causes problems with security policies and profiles.*

Chapter 8: Troubleshooting

If you encounter any of the common installation problems, you may be able to resolve the issue by following the steps indicated for that issue..

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Common installation problems

Spaces in the TEMP or TMP environment variables (Windows only)

Problem:

A space in the path of the TMP or TEMP environment variables in Windows causes the installer to abort after extracting from the archive.

Solution:

Change the TEMP or TMP environment variable so it does not include spaces.

Incomplete download

Problem:

InstallAnywhere displays a message to choose another install location. No matter what location you choose, the install doesn't succeed.

Solution:

Ensure that you downloaded the complete installation file; if not, download the file again.

Problem:
When you try to download the ColdFusion installation file on an Apple Macintosh, the download stops before it is complete, but the browser indicates that the download is complete.

Solution:
If you are using Safari:

1. Start the download.
2. Open the download window (Option-Command-L).
3. When the download looks like it has stalled, click the Stop (X) button.
4. Click the Resume button.

   Safari continues the download from where it stalled.
5. Repeat Steps 3 and 4 as necessary

Web Server connectors not installed

Problem:
If you install ColdFusion on Apache 2.0.50, the configuration file is not updated automatically.

Solution:
You must install the Web Server connectors manually, as described in "Configuring web servers" on page 79.

Server error

Problem:
When trying to access any CFM page either from the server itself, or remotely, the following error appears:

```
Server Error
The server encountered an internal error and was unable to complete your request.
JRun Connector Protocol Error.
```

Solution:
Run the Web Server Configuration Tool to unconfigure and reconfigure your web server connectors, as described in "Configuring web servers" on page 79.

Cannot start ColdFusion Server

Problem:
After installing Windows SP2 firewall, you cannot start ColdFusion services.

Solution:
After installing Windows XP Service Pack 2, the Windows Firewall is enabled by default. This prevents ColdFusion from functioning correctly. For more information, see the Tech Note at http://www.adobe.com/cfusion/knowledgebase/index.cfm?id=tn_19518.

Cannot access Flash content locally

Problem:
You cannot access any Flash content locally after installing ColdFusion on IIS.

Solution:
Look at the installation log to see if it contains the following error:

```
ANT Script Error:
Status: ERROR
Additional Notes: ERROR - Error adding connector to webserver: Internet Information Server
(IIS)
CommandLine:
ErrorString: file:C:/Temp/0971.tmp/savedURL.1:31:
java.io.FileNotFoundException: C:\coldfusion8\ConnectorInstall0.txt.bat
(Access is denied)
```

If so, shut down IIS, and then run the Web Server Configuration Tool by selecting Start > Programs > Adobe > ColdFusion 8 > Web Server Configuration Tool.

Errors displaying Flash forms

Problem:
When you try to browse a ColdFusion page that contains a Flash form, the following errors appear:

```
2 Errors found.
Error /CFIDE/gettingstarted/community/webroot/index.cfm:-1
macromedia.css.LocatorParser
```

```
Error /CFIDE/gettingstarted/community/webroot/inde.mxml:381
The class 'mx.rpc.RemoteClassRelayResponder' could not be loaded.
```

Solution:
If you are using an external web server, such as Apache or IIS, run the Web Server Configuration Tool by selecting Start > Programs > Adobe > ColdFusion 8 > Web Server Configuration Tool; also, try using the built-in server, using port 8500. For more information, see "Configuring web servers" on page 79.

Browsing a ColdFusion page displays a download window

Problem:
In earlier versions of ColdFusion, you used IIS to map the file extension .cfm to ICSF.dll. In ColdFusion, you have not mapped the .cfm file extension to any .dll file. As a result, ColdFusion pages do not execute running under Windows 2000 and IIS 5.0, but display a download window instead.

Solution:
Run the Web Server Configuration Tool by selecting Start > Programs > Adobe > ColdFusion 8 > Web Server Configuration Tool. For more information, see "Configuring web servers" on page 79.

ColdFusion Administrator displays as an encrypted page

Problem:
After you install ColdFusion, you install Windows XP SP2. When you start ColdFusion Administrator, the Administrator displays as an encrypted page.

Solution:
The Windows XP SP2 update may have undone the IIS mapping for ColdFusion. Run the batch scripts to uninstall, and then reinstall the IIS connectors. For more information, see "Configuring web servers" on page 79.

ColdFusion doesn't start

Problem:
ColdFusion doesn't start when you have McAfee Privacy Service installed on system.

Solution:
You must remove McAfee Privacy Service.

Data source problems

Unable to add a Microsoft Access data source

Problem:
When you try to add a Microsoft Access data source, an error appears:

Solution:
Install and start up the ODBC service, or use the Microsoft Access with Unicode driver.

ODBC services do not install properly

Problem:
ODBC services do not install properly.

Solution:
You must remove the existing ODBC services using the following code:

```
   <cfscript>
           writeOutput("Installing ODBC Services...<br>");
           returnValue = myObj.installODBCservice();
           writeOutput("ODBC Services installed");
          </cfscript>
```

You then reinstall the ODBC services using the following code:

```
<cfscript>
    writeOutput("Removing ODBC Services...<br>");
    returnValue = myObj.removeODBCservice();
    writeOutput("ODBC Services removed");
</cfscript>
```

Unable to INSERT or UPDATE an Oracle 10 database when there is a CLOB field

Problem:
Columns have a 4 KB size limit in Oracle. If a column is larger that that, when you try to use either the `cfinsert` or `cfupdate` tag, the following error is generated:

```
ORA-01704: string literal too long
```

Solution:
To avoid this error, use either the `cfquery` or `cfqueryparam` tag.

Migration problems

Data sources not recognized

Problem:
When you migrate from an earlier version of ColdFusion to ColdFusion 8, your application does not recognize data sources.

Solution:
Redefine the data sources.

CFCs not recognized in Dreamweaver

Problem:
When you migrate from an earlier version of ColdFusion to ColdFusion 8, the CFCs do not appear in the Components panel of Dreamweaver.

Solution:
Check the mappings and update them as necessary.

Installation fails

Problem:
On UNIX and Linux systems, when you try to install ColdFusion 8 on systems where the `/tmp` partition is mounted `noexec`, the installation fails.

Solution:
This is because the install attempts to use the `/tmp` directory for unpacking and running the installer run time. To avoid this issue, set the `IATEMPDIR` environment variable to a directory on the system that has execute permissions before running the installer.

Installation fails

Problem:
When you try to install ColdFusion, the installation fails and generate the error:

```
"java.lang.OutOfMemoryError Invocation of this Java Application has caused an
InvocationTargetException. This application will now exit. (LAX)"
```

Solution:
You must clean up the directory to which the installer is trying to extract the JRE, for example, `/tmp`.

J2EE configuration problems

Problem:
There is inconsistent behavior when you try to launch JRun using `/opt/jrun4/bin/jrun`.

Solution:
Launch JRun by using the following command:

/*yourJAVA_HOME*`/bin/java -jar /opt/jrun4/lib/jrun.jar -start cfusion`

Problem:
When you install ColdFusion on Red Hat Enterprise Linux 4, the installation script incorrectly report a warning regarding the C++ compatibility pack.

Solution:
If you plan to use Verity or C++ based custom CFX tags, you should interrogate your system for compat-libstdc++ and glibc packages and install them if necessary. Either query all packages and use the `grep` command as a filter or query the exact package name. For example, the command `rpm -qa | grep compat-libstdc++` queries all packages and filters or greps on the string `compat-libstdc++`. This command might produce two results, `compat-libstdc++-33-3.2.3-47.3` and `compat-libstdc++-296-2.96-132.7.2`.

Postinstallation problems

CLOB and data corruption

Problem:
You are using the Japanese version of ColdFusion and Oracle 8/9 with NLS_Characterset JA16SJJS, and encounter CLOB corruption and data corruption.

Solution:
Set codepageoverride=MS932 in the JDBC URL.

Unsupported keysize or algorithm parameters

Problem:
You are running ColdFusion on WebSphere 5.1 on IBM JVM 1.4.1 and encounter an "Unsupported keysize or algorithm parameters" exception.

Solution:
You must install unlimited jurisdiction policy files, as follows:

1 Download and install Unrestricted JCE Policy files for IBM SDK 1.4 from https://www6.software.ibm.com/dl/jcesdk/jcesdk-p.

2 Unzip the file.

3 Copy files unzipped from this link to the jre/lib/security directory.

4 Restart WebSphere.

Virtual mapping resource path of /* does not work

Problem:
You add a virtual mapping resource path of `/*` which does not work.

Solution:
Do not map any directories to wildcard resource paths that contain WEB-INF as a virtual mapping. In ColdFusion MX 6.1, the fact that this worked was a side-effect of the particular way the classloader was configured. For ColdFusion MX 7 and later, the classloader is consistent across all editions; the ColdFusion classloader is no longer blended with the application server's classloader. This change was made to ensure that ColdFusion MX 7 worked consistently in stand-alone server as well as deployed as an EAR/WAR to any certified J2EE application server.

Uninstall problems

COM disabled

Problem:
You have an earlier version of ColdFusion on the system. When you uninstall ColdFusion, COM is disabled.

Solution:
You must re-register the typeviewer.dll file associated with the earlier version of ColdFusion.

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